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ABSTRACT

GRADES OR AGES: Secondary grades. SUBJECT MATTER: Driver education. ORGANIZATION AND PHYSICAL APPEARANCE: The guide is divided into five chapters. The central and largest chapter, which outlines the curriculum, is further subdivided into 18 units. The guide is printed and staple bound with a paper cover. OBJECTIVES AND ACTIVITIES: Each unit contains a short list of objectives, a content outline, and a list of suggested activities. Units are organized around specific topics such as construction and operation of the automobile, rules of the road, driving on freeways, and purchasing and insuring a car. Each unit integrates classroom and behind-the-wheel instruction. Field trips to such places as car salesrooms, traffic court, insurance offices, and police stations are emphasized. No suggestions are made for timing of units. INSTRUCTIONAL MATERIALS: The guide includes a short bibliography and a list of sources for audiovisual and other aids. STUDENT ASSESSMENT: Each unit contains a short list of related questions that teachers can use for oral or written quizzes. Brief guidelines for the development of final written and skill tests are also included. (RT)

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OKLAHOMA CURRICULUM GUIDE
FOR
DRIVER AND TRAFFIC SAFETY EDUCATION

Prepared by

The State Committee on

DRIVER AND TRAFFIC SAFETY EDUCATION
IN OKLAHOMA SCHOOLS

of

THE OKLAHOMA CURRICULUM IMPROVEMENT COMMISSION

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1969

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FOREWORD

The Governor of the State of Oklahoma and the State Legislature have not only approved the inclusion of a course in Driver and Traffic Safety Education in the high school curriculum, but have provided special funds to those schools who will provide a standard approved course. This reinforces our belief that the teaching of Driver Education to ALL eligible high school students will reduce traffic accidents, save lives and suffering, eliminate much loss in monetary resources, and will develop good citizenship.

There have been many influential groups that have encouraged the public schools to take a more active part in solving traffic problems. Some of the more prominent groups that have been active in encouraging Driver and Traffic Safety Education are: The President's Highway Safety Committee, The American Association of School Administrators, The National Council of Chief State School Officers, The National Commission on Safety Education of the National Education Association, The American Automobile Association, The American Driver and Traffic Safety Education Association, most all insurance groups, National Highway Users Conference, and, most recently, The Federal Government through the passage of the National Highway Safety Act of 1966.

This curriculum guide provides a pattern for administration and organization, and a suggested course outline for driver education classes in the Oklahoma public schools. The material for this publication was developed for driver education teachers, as well as school administrators, by competent people who have been active in this program for a great number of years.

It is our desire that this instrument will be helpful to teachers and students of high school driver education classes, and to the instructors in our colleges who are concerned with preparing qualified teachers for driver education. The purpose of this guide is to help provide guidance and to assist schools in planning an effective driver education program. This is not a directive, but should be helpful in fulfilling the requirements for a standard and uniform course in the state.

I wish to express my appreciation to each person who assisted in preparing this publication.

D. D. Creech

State Superintendent of Public Instruction

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HISTORY

One of the first driver education courses open to the public was offered at the Young Men's Christian Association in Boston. It reflected the early motorist's need for information on automobile mechanics. The operation and construction of motor vehicles were taught by lectures, and a machine shop was provided so that students could learn to repair and maintain their own cars. At that time there were 32,920 automobiles in the United States.

Development of a program of safety education in secondary schools was first recommended in 1924 by the committee on education of the National Conference on Street and Highway Safety. In the late 1920's a few schools started experimenting with a course in driver education, and in 1934 a high school offered the first course called Driver Education.

However, the first course of this type was given at State College (Pennsylvania) High School in 1933. At that time, nothing was available for general use in the text materials, training aids or dual control cars. Materials used for lessons had to be developed, mimeographed and furnished to the high school students enrolled. This pioneering led to the later devolepment of standard text materials, tests, and many other teaching aids.

The first teacher preparation course was offered at Pennsylvania State College, in the summer of 1936 and was followed by one in Bluefield, West Virginia six months later. Most of the first courses given for high school teachers consisted of one-week or 40 hours of instruction. In recent years, this period of time has been increased so that most summer courses last from two to six weeks.

In Oklahoma the High School driver education teacher preparation was started at Oklahoma State University in 1946. During the school year 1946-47, in Oklahoma seven (7) schools started offering Driver Education and this number increased to thirteen (13) in the school year 1947-48. The program grew rather rapidly from that time until about 1952 when it leveled off and a bit later it even declined because automobiles for the program became very difficult to obtain.

Institutions offering courses, workshops and clinics in the field of Driver Education and Safety in Oklahoma include Oklahoma State, N.E. State, S.W. State, Oklahoma University, S.E. State and Central State at Edmond.

On the 16th day of May 1967, Governor Bartlett signed House Bill No. 738, passed by the 31st Legislature funding Senate Joint Resolution No. 24 which was signed by Governor Bellmon but was later struck down by the Oklahoma Supreme Court.

Driver Education is rapidly becoming an integral part of the secondary school curriculum in Oklahoma public high schools and expansion of the program is a continuing process. The growth is due to the combined efforts of the State Department of Education and the State Department of Public Safety in cooperation with many other agencies and organizations.

PHILOSOPHY

Being deeply concerned with the tragic toll of life and property resulting from needless traffic accidents on Oklahoma streets and highways, and, having faith in the ability and willingness of free people to solve their problems, we believe:

1. That the control of this problem represents the greatest immediate social, economic and humane need confronting this state — a problem in which public officials and the general public as well, have both moral and civic responsibility.
2. That the major road-blocks to the solution of this problem are individual and public apathy, complacency, and the lack of knowledge.
3. That the greatest determining factors in this problem are the physical, mental, and emotional characteristics of people who use the highways.
4. That the most immediate need for control is improved facilites to affect more strict enforcement of traffic laws, state-wide.
5. That the greatest long-time need is an educational school safety program designed for all grade levels, that will provide learning experiences for traffic safety.
6. That a standard state-approved course in driver and traffic education should be an integral part of the over-all school safety program and be required as prerequisite for a driver's license for those under 18 years of age.
7. That the responsibility for determining, administering, supervising and evaluating the educational phases of this program, be invested in the Driver Education Division, of the State Department of Education, supported by the State Department of Public Safety.
8. That for the future, this program will create state-wide interest and public support for safety education through improved legislation and financial aid for more effective traffic accident prevention in this state.

OBJECTIVES

1. To enable the students to build good habits and attitudes about driving, at an age when they are most eager to learn, that will last a lifetime.
2. To develop an understanding in students of the reasons for traffic laws and why they should apply them in their own driving.
3. To develop an understanding of personal limitations and abilities, and to learn how to make suitable adjustments to compensate for them.
4. To assist each student in the development of habits and skills leading to efficient performance in driving and walking.
5. To develop within the students an awareness of errors made by drivers and pedestrians, enabling them to apply defensive techniques to dangers in traffic.
6. To inspire students to take an active interest in, and to lend support to, all activities which promote good driving education, engineering, and enforcement.
7. To help students understand the historical development of the motor car and its effect on society.
8. To help students acquire the desirable knowledge, skills, habits, and attitudes for safe and economical operation and care of motor vehicles and equipment as it pertains to traffic safety.
9. To help students understand natural and civil laws that determine and regulate safe operation of motor vehicles.
10. To develop within each student a safety conciousness and self-discipline in respect to the rights and privileges of others using our streets and highways.

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Part I

ORGANIZATION AND ADMINISTRATION

National Highway Safety (P. L. 89-5641)

Each State shall have a highway safety program . . . designed to reduce traffic accidents and deaths, injuries and property damage resulting therefrom.

(b) (1) The Secretary shall not approve any State highway safety program which does not . . .

(A) Provide that the Governor of the State shall be responsible for the administration of the program.

(B) Provide for comprehensive Driver Training programs, including (1) the initiation of a State program for Driver Education in the school systems or for a significant expansion and improvement of such a program already in existence . . . . (2) the training of qualified school instructors and their certification; . . . . and (3) adequate research, development and procurement or practice driving facilities, simulators, and other similar teaching aids for both school and other driver training use.

The State of Oklahoma has legislatively approved the inclusion of a course in Driver and Traffic Safety Education in the high school curriculum, reinforcing a belief that the teaching of this subject to all eligible pupils will tend to reduce traffic accidents, save lives and suffering, and eliminate much loss in monetary resources, as well as develop good citizenship, the State will reimburse school districts on a per pupil basis when Driver and Traffic Safety Education is taught according to the rules and regulations promulgated by the Oklahoma State Board of Education.

However, installation of this course on a firm basis entails far more than departmental organization. Developing full support so as to make the course a permanent and integral part of the curriculum demands considerable planning and progressive leadership. Because the Driver and Traffic Safety Education Program is a young program it exists solely on its proven merits. Despite the fact that numerous studies attest to its value, many schools still confine their offerings to mathematics and science, etc. Necessarily then, the community should be alerted to the value of the program and kept constantly informed of its progress. Newspaper support should be solicited and magazine articles circulated. High emphasis should be placed on the fact that Driver and Traffic Safety Education in the high school, taught by qualified teachers, provides the one opportunity for properly training the great mass of our future citizens to drive and live in our motor vehicle traffic age. For those who maintain that there is no time for driver education in the schools, data should be presented indicating how little time is a c t u a l l y taken. Thirty hours for the classroom phase and six hours per student for the in-car phase are the minimum and most common. That this very small part of a student's school life may keep him alive to enjoy the benefits of his education is often missed in waves of sweeping generalities.

Those who do understand driver education, its aims and objectives, support it firmly. It behooves school authorities then to maintain a continuing program of information so that all concerned, including the general public, understand its importance. Efficient organization and administration of this program demands that the subject should possess the same degree of autonomy as any other. This requires a logical and efficient chain of communication, supervision and administration. Of primary importance in this chain is the teacher and supervisor. The success of the program depends on their personality, character, preparation, and ability. Serious attention is directed toward the following information.

TEACHER QUALIFICATIONS

State Board of Education rules and regulations for Driver and Traffic Safety Education (August 25, 1967) require that in order to teach Driver and Traffic Safety Education in Oklahoma secondary schools, a person must have:

A. A valid elementary-secondary or secondary teaching certificate.
B. A current Oklahoma driver's license.
C. An acceptable driving record approved by the Department of Public Safety.
D. A minimum of three (3) semester hours in Driver Education I, with the exception that earned credit in a teacher preparation driver education course taken prior to September 1, 1958, may meet this requirement.
E. A minimum of two (2) semester hours of General Safety Education.
F. A current driver education instructor's permit.

NOTE: The above qualifications provide for accreditation only.
This applies to a teacher whose assignment in this area is minor.
For a major assignment the teacher must have the special certificate in Safety and Driver Education.

In reference to item (F) above, the State Department of Education shall require proof of an accredited program of Driver and Traffic Safety Education at the instructor's school before recommending to the Department of Public Safety that a permit be issued.

The application shall be typed and submitted in quadruplicate on Form DE-10 to the Division of Safety, Driver Education, Health and Physical Education, State Department of Education from whence the form may be secured. Upon receipt of Form DE-10, if examination indicates that the school has met the requirements for an approved course in Driver and Traffic Safety Education, and the teacher is qualified, approval will be made and the application will be referred to the Department of Public Safety for investigation of the instructor's driving record. If the record merits issuance of said permit, it will be forthcoming from that Department.

In addition to the above requirements, it is incumbent upon the school administration, when choosing a teacher for this program to be aware of the fact that much of the instruction is done on the public streets and high-

ways under the eye of that most severe critic, as far as automobile operation is concerned, the average driver. In view of the public relations involved, the prospective teacher should be one who accepts the responsibility of being a competent traffic citizen not only when teaching but also in his personal life as both a driver and a pedestrian.

He should have the ability not only to plan and perform well in the teaching environment, to identify and help solve special student problems, to change and adapt to new knowledge, but also to work effectively with community resource groups for the benefit of all.

REIMBURSEMENT

The State Superintendent of Public Instruction shall allow to each school district an amount equal to the actual cost, but in no case exceeding thirty-five ($35) dollars per pupil who completes the time requirements in the Driver and Traffic Safety Education Program in that school district during the preceding fiscal year.

Regulations have been established by the State Board of Education for the Driver and Traffic Safety Education Program and standards have been agreed upon for schools to qualify for reimbursement.

A. First Year
When a school desires to establish an approved Driver and Traffic Safety Education Program for the first time, the State Department of Education may estimate the total number of students who will complete the required hours for the first year, based on certified reports by the school, then, if funds are available after prorating money to schools maintaining a standard program the previous year, pay said first year school not to exceed fifty per cent (50%) of the estimated cost for the current year. Said amount shall not exceed thirty-five ($35) dollars per pupil.

B. Allowable Costs
Every public school qualifying for reimbursement shall, upon conclusion of a school year, submit a report showing the complete cost of the program and a statement that all of the minimum standards have been met.

Driver and Traffic Safety Education Program costs shall be based upon:

1. Salaries (pro-rata for Driver and Traffic Safety Education instructors).
2. Gasoline, oil, maintenance and insurance costs, including medical payments coverage, of driver education automobiles.
3. Supplementary teaching materials and equipment directly related to the Driver and Traffic Safety Education Program.

NOTE: Reports shall be submitted only on forms designed and furnished by the Division of Safety, Driver Education, Health and Physical Education.

C. Summer School
Driver and Traffic Safety Education Programs during the summer session may be approved providing that the school does not concentrate the Program in this period. It is assumed that the summer

session will be used to handle overflow, or student scheduling difficulties, from the regular school semesters. In any case, reimbursement shall be made for a summer program only if all of the regular semester provisions are met.

D. FEES
After September 1, 1967, NO FEE shall be charged to the student for this program.

CAUTION: Any school district conducting a Driver and Traffic Safety Education Program must be certain that each teacher involved in the Program holds an Instructor's permit, otherwise the school district shall not be eligible for reimbursement under the provisions of this act.

RECORDS

In addition to the usual pupil information on progress kept by the school, it is necessary for certain records to be on file with the Division of Safety, Driver Education, Health and Physical Education of the State Department of Education. They are as follows:

A. Copy of the instructor's permit. Application for this permit must be approved by the Department of Education before investigation by the Department of Public Safety. The permit is issued by the latter Department. The instructor's permit must be obtained before any behind-the-wheel instruction is given.
B. Class schedule for EACH period of Driver and Traffic Safety Education in EACH school applying for reimbursement.
C. Typed list (quadruplicate) of students currently enrolled in this program. (Form DE-10)
D. Typed list (duplicate) of students meeting minimum time standards of thirty (30) hours classroom instruction and six (6) hours instruction per student behind-the-wheel of a driver education car. This record is for certification purposes only.
E. Typed list (duplicate) of students satisfactorily completing the program.
F. Other reports may be requested from time to time in order to measure progress and make appropriate adjustments. Forms will be provided.

NOTE: All forms necessary for reporting are available from the Division of Safety, Driver Education, Health and Physical Education of the State Department of Education.

INSTRUCTIONAL TIME REQUIREMENTS AND CREDIT

The Driver and Traffic Safety Education Program shall be conducted on a semester basis (minimum).

During the semester students will be regularly scheduled for class and in-car instruction periods. Records of progress and attainment shall be kept as for any other school subject.

Each student must receive a minimum of thirty (30) clock hours of classroom instruction and a minimum of six (6) clock hours of actual

driving at the wheel of a dual-control driver education car under the direction of a qualified Driver and Traffic Safety Education instructor. If the qualified instructor carries on related instruction during the in-car phase, four (4) hours of in-car observation time may be counted against the thirty (30) hours of required classroom time. Presumption is made that the one to three students riding, while awaiting a turn at the wheel, will be involved in discussion and application of driving principles. Class record must substantiate this allowance.

A recommended procedure to meet the time requirement and also to offer a one-half unit of credit would be to provide a MINIMUM of seventy-two (72) periods per pupil (four or five periods per week per semester or its equivalent). This means that for one-half of credit the student must receive at least four periods of instruction per week for a semester of eighteen (18) weeks or an equivalent if the course covers a longer or shorter time period.

One method of providing a minimum of seventy-two (72) instruction periods would be to schedule thirty-eight (38) periods of classroom instruction and twenty (20) periods in the dual-control car under direct supervision. The remaining fourteen (14) periods could be distributed between classroom and in-car instruction according to need.

Students to be counted by the school under these regulations shall receive a minimum of thirty (30) clock hours of classroom instruction and a minimum of six (6) clock hours of actual driving in the driver education car, all under a qualified Driver and Traffic Safety Education instructor.

Four (4) hours of in-car observation time may be counted in earning the thirty (30) hours in the classroom.

The Driver and Traffic Safety Education Program shall be conducted a minimum of one (1) semester.

SCHEDULING

In keeping with the provisions of the National Highway Safety Act of 1966, implemented by legislative approval of the State of Oklahoma, it is necessary to schedule this program so that all eligible students may participate. Special attention must be directed to students having no time available except during the regular school day. While it may be necessary, in some cases, to carry on the behind-the-wheel phase through an extension of the school day, emphasis should be placed on inclusion within the day.

Regulation 'O' Administrator's Handbook states, "Schools shall obtain permission from the State Board of Education before conducting Saturday classes to make up for days lost." This clearly indicates that neither the classroom nor the in-car instruction phase may be regularly scheduled on Saturdays.

The classroom phase shall be scheduled in keeping with the usual policy for other subjects in the curriculum. While it is advisable to arrange for the behind-the-wheel phase at the same hour as the classroom phase, either integrated with it or following it, attention must be PRIMARILY directed toward

the needs of the students and SECONDARILY to the convenience of the school scheduling policy.

Where simulation is used, it should be integrated with the behind-the-wheel phase, and where possible all phases (classroom and behind-the-wheel; classroom, simulation, and behind-the-wheel; classroom, simulation, range and behind-the-wheel) should be so scheduled as to supplement each other to the greatest extent.

Groups of students numbering two to four shall be scheduled for the behind-the-wheel phase and at no time shall the instructor conduct in-car instruction with less than two pupils.

Where full-time Driver and Traffic Safety Education Program instructors are used, it is highly recommended that one planning period per day be provided for conferences, make-up work, student problems, and car maintenance.

METHODS OF SCHEDULING

Asssignment of all students to regular classes of Driver and Traffic Safety Education is highly desirable. It is preferable that they be so assigned as to complete the course when they are of the legal age to begin driving.

There are various methods used by schools to meet the needs of the students and comply with time requirements:

Plan A - Envisions a class regularly scheduled in a certain period with both the classroom and the behind-the-wheel phase conducted by the same teacher in that period.

Plan B - Envisions a class regularly scheduled for the classroom phase only and necessitates a vacant period later in the school day for the behind-the-wheel phase. Both A and B have the advantage of integrating both phases of instruction with all time requirements completed in one semester.

Plan C - Envisions the classroom phase for a large group of students completed within a time span. The behind-the-wheel phase would follow according to the availability of the students. While easier to schedule, this plan has the disadvantage of requiring much re-teaching during the latter phase of the work. It would certainly not take advantage of student readiness, interest, and recall.

Plan D - Envisions the use of modern teaching tools such as television or teaching films in driver education. Under this plan a large group of students may meet one period of the week for the lesson as taught by the television or film teacher, with a teacher in charge. The second class period, composed of smaller groups, would be conducted by the local teacher on a discussion basis. By use of this method four (4) classes of twenty-five (25) each could accomplish in five (5) periods what would normally require eight (8) periods. The behind-the-wheel phase would be scheduled as students are available.

There are combinations and variations of the above suggested plans which may fit a school program. Specific scheduling plans of various schools are available from the Division of Safety, Driver Education, Health and Physical Educaton of the State Department of Education. The primary aim of the scheduling procedure is to provide quality instruction for all students. The minimum time requirement of thirty (30) hours of classroom and six (6) hours per student of behind-the-wheel instruction is merely a program foundation. Extra time must be allowed to take care of individual differences of pupils.

To assure thirty (30) clock hours of classroom instruction:

Minutes per Class Period	Minimum Sessions Required
40	45
45	40
50	36
55	33
60	30

To assure six (6) hours per student of behind-the-wheel instruction:

Minutes per Class Period	Minimum Number of Sessions Required in Car		
	2 Pupils	3 Pupils	4 Pupils
40	18	27	36
45	16	24	32
50	15	22	29
55	14	20	27
60	12	18	24

SUMMER SCHOOL

Driver and Traffic Safety Education may be offered in a regular summer school program for reimbursement providing:

A. It is not a substitute for regular semester offerings.
B. All provisions applying to the regular semester are met, i.e. time requirements, eligibility, teacher qualifications, etc.
C. Approval is secured from the Division of Safety, Driver Education, Health and Physical Education of the State Department of Education.
D. It is an approved summer term by the Division of Instruction. Eight (8) weeks time sessions are preferred but in special cases four (4) week sessions may be approved.

Schedules may be required to show how time requirements will be achieved.

Approval also depends on evidence that the school district is making a determined effort to provide Driver and Traffic Safety Education for all students during the regular school year.

All reports and records required for a semester program are also required for a summer school session.

SIMULATION AND TEACHING MACHINES

Some schools have used and are using driving simulators to substitute for a part of the "behind-the-wheel" phase of the program. There are limitations imposed on this activity. Where such devices are used the time spent on simulators shall be at the ratio of four (4) to one (1), i.e. four (4) hours on the simulator may be substituted for one (1) hour of actual behind-the-wheel driving experience. Regardless of how much excess time is spent on simulators a minimum of three (3) hours instruction must be behind-the-wheel for each pupil in order to satisfy the time requirements. When simulation is used and the block system of instruction is in effect, the same instructor must teach simulation at each teaching station. All simulators used to substitute for driving time must be approved by the Division of Safety, Driver Education, Health and Physical Education of the State Department of Education. Teaching machines of any type and other innovations may be used as part of the classroom instruction phase and not in the simulation or behind-the-wheel phases. Approval is not necessary for introduction of teaching machines or other innovations although notification of the Division is desirable.

MULTIPLE CAR APPROVED DRIVING RANGE

The feature of this technique is that a number of cars may be driven at the same time in an off-street area under the direction of one or more teachers . Laboratory instruction and practice is thus provided. The area may be a closed street, a parking lot, or a specially prepared surface having space wide enough for multiple lane traffic, intersections, grades and curves, lane markings, signs and signals, and an effective method of communication between teachers and students in the cars. Without doubt, through the use of the range plan, economy of teacher time can be effected. This experience may be counted at the ratio of 2 for 1. One teacher can instruct several students in separate cars at the same time. When this technique is used each student must have at least two hours of actual driving experience in traffic to comply with the State requirements. Notification of use should be made to the Division of Safety, Driver Education, Health and Physical Education of the State Department of Education.

If a three point program is employed a minimum of three hours behind-the-wheel is required. If a four point program is employed never less than two hours behind the wheel is required.

LIMITATIONS AND PROGRESS

It must be recognized that the teacher cannot hope to develop an expert driver in a one-semester course. The complexities of modern day traffic, the number of students desiring the course, and the variations of learning ability on the part of individual students militate against this. The teacher can, however, provide opportunities to acquire the basic skills, knowledge, certain fundamental experiences, and a foundation for a proper attitude of co-operation and sharing upon which the student can build his "driving" life.

The student will need to gain additional desirable experience, preferably with his parents. Sometimes this experience and practice is possible

during the time the student is studying Driver and Traffic Safety Education; sometimes it may follow the course. At any rate the teacher can expedite the development of a complete traffic citizen by keeping the parents informed as to progress of his students and by making instructional aids such as driving guides available for parental use. Not to be overlooked is the possibility of extending traffic safety information to the student's family. Through school letters and personal contact, parents should be informed of the aims and objectives, the content and procedures of the course as well as the progress of their student.

MATERIALS AND TEACHING AIDS

Every student should have available a driver education textbook for his own use. In addition, workbooks, driving guides, standardized classroom tests, road tests in traffic, and supplementary teaching materials can be of valuable assistance to both teacher and student. Equipment contributing to good teaching and learning includes:

A. Psycho-physical devices for checking visual ability, hearing, and reaction time.

B. Mechanical models to bring three-dimensional visual aid to teaching.

C. Magnetic boards, flannel boards, mock-ups and parking boards for visualizing traffic situations.

D. Stanchions, traffic cones, declerometers, jerk recorders, and brake reaction testing detonators for use in the behind-the-wheel training and testing phase.

E. Transparencies, film strips, and films broaden both the teaching and learning aspects of the program.

It is wise to remember that it is the proper use, and not the mere availability of teaching aids and materials, that produces results. The key factor in student achievement is teacher competency in planning and delivering good instruction.

DUAL-CONTROL CARS

In-car instruction should only be given in cars equipped with dual controls to permit the instructor to operate the brake and clutch in manual shift cars and the brake only in automatic shift cars.

EXCEPTION: If a school uses a driving range for basic in-car instruction it is not necessary for the vehicles, used only on the range, to be equipped with dual controls.

The car shall preferably be a four-door sedan but in every case equipped with:

A. Dual controls

B. Right and left side mirrors

C. Seat belts for all occupants (attention is directed to the desirability of the use of across the shoulder belts for at least the front seat occupants).

The car shall be properly marked so as to identify with the school and the course. Marking shall indicate "Driver and Traffic Safety Education Program" or equivalent thereof. These markings should be detachable.

Cars may be obtained for school use by loan, lease, or purchase. The most common method is borrowing from a dealer. Where this method is used, a contract should be in effect carefully delineating the responsibilities of all concerned. Most car manufacturers, and the American Automobile Association or the State Department of Education participating with manufacturers and dealers, have a dual-control car loan program for driver education. Car loan agreement forms are available from them.

All dual-control cars secured on a loan basis shall be used only for Driver and Traffic Safety Education.

School district leased or owned cars used in this Program must always be available for scheduled behind-the wheel instruction. If or when the vehicle is used for other purposes, identification with the Driver and Traffic Safety Education Program shall be removed. In addition, special care must be taken with riders in the car because of the dual-controls.

Regardless of what type of car acquirement program is used; loan; lease; or purchase, it is necessary that arrangements be made for adequate insurance to cover liability in case of accidents. The school district should develop a policy governing the use of driver education vehicles including circumstances and times for use and personnel authorized to use them. In addition, a definite plan should be followed concerning inspection, servicing, and repair. No car should be used when it is not in proper operating condition.

DRIVING PERMITS

A. Driver Education Instructor

All instructors in the Driver and Traffic Safety Education Program must have a driving permit issued by the State Department of Public Safety. Application for this permit is made on Form DE-10 in quadruplicate. After being processed and approved by the Division of Safety, Driver Education, Health and Physical Education of the State Department of Education, the forms are sent to the Department of Public Safety. If investigation of the applicant's driving record is satisfactory, the latter Department issues the permit.

B. Driver Education Students

A student electing the Driver and Traffic Safety Education Program in any public school of this State must show evidence that he is physically and mentally capable of accepting instruction and may profit from the course.

The student must be fifteen and one-half (15½) years of age or, regularly enrolled in the 10th, 11th, or 12th grades of a public secondary school

NOTE: It is possible that a student below the age of fifteen and one-half (15½) years of age may be regularly enrolled as above. In this case,

the student may participate fully in the in-car instruction under the direction of the qualified teacher, but may not obtain a beginner's permit until he reaches the age of fifteen and one-half (15½) years. For driving other than in-car instructions, student not already licensed to drive, must have a learner's permit which will be issued by the Department of Public Safety from student information contained on Form DE-10.

ALL students LICENSED or not must be listed on Form DE-10.

ADULTS AND OUT-OF-SCHOOL YOUTH

Nothing in this guide should militate against the development of basic courses in Driver and Traffic Safety Education for adults and non- school youths. It is highly recommended that the public secondary school investigate the opportunity of offering such programs comparable to the approved high school course.

No State reimbursement can be offered at present, but it is possible that through fees the course could be self-supporting. Teachers should be cautioned not to over extend themselves by taking on a heavy instructional load in this area. No fee should be paid directly to the instructor by the student.

The service to the individual, to the local community, the State and the Nation in helping to improve motoring should be invaluable.

EVALUATION AND RESEARCH

Each program of Driver and Traffic Safety Education should be under constant evaluation to ascertain the extent to which objectives are being achieved. Evaluation should consider immediate objectives; ultimate objectives; and program characteristics and practices.

A high quality program can be assured only through evaluation. Research for the purpose of developing more effective programs is encouraged.

Relevant investigations from the behavioral sciences, physical sciences, psycho-neurological sciences and from moral-ethical concepts are needed. Conclusions from such research will lead to improved practices. Genuine research is allowed in an attempt to formulate more effective programs. Any school desiring to try innovations will be given consideration upon written application to the Division of Safety, Driver Education, Health and Physical Education of the State Department of Education.

AMENDMENTS

Notwithstanding the explanation and development of the foregoing rules and regulations, changes may be made in the future upon recommendation of the Commissioner of Public Safety and the Superintendent of Public Instruction if adopted by the State Board of Education.

Part II
INSTRUCTIONAL PLANNING

Planning is essential in both the classroom and practice driving phases of the program. The teacher should be thoroughly familiar with classroom instruction and procedure. He should be familiar with the locality in which he will do practice driving and have a suitable location for teaching the different driving maneuvers. Instructional planning should be predicated upon the needs of the student, and based upon the aims and objectives of driver education.

A complete program of classroom and practice driving instruction should include consideration of the topics shown in the guide below. This guide is not intended as a teaching outline, but rather as an arbitrarily arranged list of classroom and practice driving instructions to indicate the nature and scope of what students should learn in a driver education course.

A. *TRAFFIC CITIZENSHIP*

1. Responsibility to other drivers and highway users
2. Responsibility to community, family, and self
3. Attitudes of safe walking
4. Courtesy and manners
5. Intelligent support of police officials
6. Understanding of enforcement and supervision policies
7. Voluntary observance of signs, signals, and markings

B. *LAWS and REGULATIONS*

1. Knowledge of local traffic ordinances and state motor vehicle laws
2. Understanding of physical laws that affect drivers
3. Knowledge of pedestrians and cyclists laws

C. *CHARACTERISTICS OF DRIVERS*

1. Social, mental, emotional, and physical
2. Psychology of driving
3. Effects of alcohol and drugs

D. *DRIVING SKILLS*

1. Basic habits and maneuvers
2. Parking
3. Making turns
4. Special Skills for driving in the city, on the highway and on the expressways
5. Skills in handling difficult driving problems and meeting emergencies
6. Skills of defensive driving

E. *DEVELOPMENT OF JUDGMENT*

1. Vision and perception
2. Knowledge and analysis of traffic situations
3. Making decisions

F. *ROLE OF GOVERNMENT*

1. Driver licensing
2. Vehicle registration and inspection
3. Financial responsibility laws
4. Equipment required on vehicles
5. Enforcement of laws through police and courts
6. Highway and traffic engineering
7. Official safety agencies
8. Education of the driver

G. *AUTOMOBILE USE*

1. Economics of vehicle ownership and operation
2. Trip planning and map reading
3. Servicing, maintainance, and inspection of vehicles
4. Pleasure and commercial transportation
5. Professional driving

H. *THE TRAFFIC PROBLEM*

1. Human and economic losses
2. Impact of accidents on the community, state, and nation
3. What to do in case of an accident

INSTRUCTIONAL MATERIALS AND RESOURCES

Materials should be varied, and carefully selected and used. Teachers should be familiar with available materials and make full use of the aids at hand. An abundant supply of materials and teaching aids in the field of Driver Education are available to teachers. The following materials and resources will greatly enrich the educational program.

A. *PSYCHOPHYSICAL TESTS*

1. Visual tests
2. Reaction tests
3. Audiometer tests

B. *VISUAL AIDS*

1. Films
2. Filmstrips
3. Diagrams
4. Posters
5. Magnetic boards
6. Transparencies

C. SIMULATOR EQUIPMENT

D. RESOURCE MATERIAL

1. Text books
2. Supplemental publications
3. Magazines and newspapers
4. Work books

E. PUBLIC AGENCIES

1. State Highway Patrol
2. Local Police
3. State Department of Education, Division of Safety, Driver Education
4. United States Department of Education
5. Safety Councils
6. National Commission on Safety Education

F. PRIVATE AGENCIES

1. Insurance companies
2. Automobile industries

G. MISCELLANEOUS AIDS

1. Models
2. Automobile parts
3. Cutaway Automobile engine

H. RESOURCE PEOPLE

1. Judge
2. Highway Patrolman or Police Officer
3. Optometrist
4. Psychologist
5. Trucking Company Safety Director

OTHER AIDS TO INSTRUCTION

Every locality or community affords an excellent opportunity for students to gain additional learning experiences through field trips for the purpose of traffic surveys, interviews and traffic checks. Other visits may be made to traffic courts, wrecking yards, garages, Police Station, Highway Patrol Station & Highway Department.

Part III

SUGGESTED LESSON PLANS

UNIT ONE

ORIENTING STUDENTS TO THE HIGH SCHOOL DRIVER EDUCATION PROGRAM

Driver Education is structured quite differently to the other courses which students have taken in the high school curriculum. Therefore it is most important that during the first class session, the instructor give a precise explanation of what will be included in the course and student requirements necessary for rating in the course.

Among the items to be included in orientation are the following:

1. The different phases or divisions of the course.
2. How and why students are grouped.
3. Schedule of each phase of the program for each student.
4. Time requirements to be met.
5. Importance of daily attendance. (Absences MUST be made up.)
6. Notebooks and their use.
7. Group activities and projects to be included in the course.
8. Kinds and number of tests to be given in the course.
9. How the rating in each phase of the course will be determined.
10. Requirements for obtaining a Temporary Driving Permit.
    a. State requirement
        (1) age
        (2) tests
        (3) privilege granted by permit
        (4) What to do about the permit if a student drops driver education before completing the course.
    b. Local requirement
        (1) pass qualifying written test
        (2) show competency in starting, steering, turning, and stopping a car.
        (3) attendance of at least fifteen class periods
11. Have each pupil to complete the biographical form. The instructor should read each statement as the students fill them in. This will assure more complete information.
12. Administer a pre-test. See appendix for suggested example.
13. Distribute text materials.
14. Make first assignment.

UNIT TWO

SOCIAL AND ECONOMIC BACKGROUND OF THE AUTOMOBILE

OBJECTIVES:

1. To acquaint the student with the history of the automobile
2. To acquaint the student with the development of the automobile as conditions have changed

3. To make students aware of the economic and social problems that have arisen as conditions have changed
4. To help students understand the important part the motor vehicle plays in the welfare of our nation and to the multitude of workers dependent upon it
5. To familarize the students with the opportunities for employment of both men and women in the transportation field.

I. *PREPARATION*

There are over 6,000,000 professional truck and bus drivers traveling these roadways daily. Many of these drivers are women who contribute to this transportation system in various ways. Driving school buses is an example.

There are other drivers besides the professionals who depend on the motor vehicle for their livelihood and convenience for living and working areas. These might be called the semi-professionals, the doctor, the postman, the delivery and service men, yes, and even the housewife who needs transportation to successfully manage the household and raise a family.

Good paying jobs are to be found in motor vehicle transportation. Scenes at freight terminals show the duties of the drivers of large tractor-trailers, and the responsibilities of the people in a large repair and maintainance shop.

Improvements such as sealed beam headlights, dual braking systems, power brakes, and power steering, retractible steering columns, safety glass, defrosters for windshields and rear glasses, padded dash and sun visors, seat belts, better tires, electric turn signals, larger stop lights, door locks, increased horsepower, air conditioning, automatic transmissions, constant speed windshield wipers, windshield washers and wrap-around windshields are now making motor vehicles more comfortable, easier to handle and much safer than vehicles of the past.

II. *PRESENTATION*

A. *History of the automobile*

1. Beginning
   a. Means of Power
      (1) Steam
      (2) Internal Combustion
      (3) Electric
   b. Body styles (Earliest forms)
   c. Continued Improvements
      (1) Comfort
      (2) Safety

2. Growth of the Industry
   a. Research
   b. Production
   c. Consumption

B. *Social and Economic Change (Worker)*
   1. Added employment
   2. One out of every 7 persons earn a livelihood either directly or indirectly from the automobile.
      a. Manufacturing
      b. Selling
      c. Servicing
      d. Insuring
      e. Registering
      f. Highway construction
      g. Professional Drivers of cars and trucks
      h. Other
   3. Better working conditions

C. *Public Welfare*
   1. Police protection
   2. Fire protection
   3. Medical aid
   4. Other

D. *Public Transportation*
   1. More than 200,000 motor buses in U.S.
   2. Millions of persons depend on the buses as the link between home, lab, school, and shopping districts.
   3. Chief form of public transit in American Cities.

E. *Education*
   1. Over 100,000 school buses in use in the U.S.
   2. More than 6,000,000 pupils transported daily
   3. Caused many 1 and 2 room schools to disappear
   4. Improved educational programs
   5. Makes possible educational excursions for students

F. *Recreation*
   1. Attendance at sports events, beaches, and parks increased
   2. Vacations for families.
   3. Tourists and resort industry established (accommodate over ten billion persons annually)

G. *Revenue* (one dollar out of every eight dollars collected in the U.S. is automotive origin)

H. *Types of automotive taxes*
   1. Federal excise
   2. Parts
   3. Tires
   4. Gasoline
   5. Oil
   6. Registration fees
      a. School finance
      b. State sales tax
      c. Federal and state corporation tax
      d. Others

III. *APPLICATION: (Have students)*

A. Report on vehicle registration and its increase over the years for your community.
B. Models pertaining to advancement in design and construction of automobiles.
C. Report on production and consumption of the automobile.
D. Report on jobs related to production, distribution, or use of automobile.
E. Look for the many different job opportunities offered in the field of motor vehicle transportation.
F. Discuss the range of activities found in motor vehicle transportation, specific job opportunities

IV. *EVALUATION .*

A. Written Tests
B. Miniature mock-ups
C. Panel discussion
D. Oral discussion
E. Individual assignment
F. Group assignment

DISCUSSION QUESTIONS

1. What did you learn from this lesson that was entirely new to you?
2. What jobs in driving do women fill well?
3. Give reasons why companies operating large vehicle fleets cannot afford to hire drivers who have had bad driving records.
4. Why must a bus driver be highly skilled and feel his responsibility?
5. Who are the semi-professional drivers? Is their work as important as the "pros"?

UNIT THREE

PHYSICAL CHARACTERISTICS OF THE DRIVER

OBJECTIVES:

1. To acquaint pupils with areas of vision that relate to driving.
2. To help pupils to evaluate their own vision.
3. To acquaint pupils with the meaning and importance of reaction time.
4. To help pupils know conditions that may effect their reaction time.

I. *PREPARATION*

With the aid of a tachtiscopic lens attached to a 35 mm. projector and adjusted in such manner as to allow an exposure for the least amount of time possible. Use a prepared slide showing a montage of traffic signs to the group. Ask each member to list on paper what he sees when the scene is projected on the screen. To begin with very few if any of the group will distinguish what is projected on the screen.

Adjust the lens to allow more time for exposure. Continue adjusting the lens until all members can identify the signs correctly.

Keep the reading of the lens when the first person or persons correctly identify what is projected on the screen and the reading when the last member of the group properly identifies the signs to see the range of the group.

Take a crisp one dollar bill and ask some member of the group to come and stand in front of you. With the thumb and forefinger spread a distance of approximately two inches apart, hold the bill between the person's forefinger and thumb with half of the bill above the thumb and forefinger. Now tell the subject he may have the bill if he can catch it before it passes through between his thumb and forefinger when you drop it. This demonstration will no doubt prompt others to want to try. Permit several members of the group to make the attempt. The teacher should through conversation attempt to distract the members attention from the task at hand.

Have each pupil draw an X in the left center of an 8½ x 11 sheet of paper. Five inches to the right and in the same horizontal plane, have him place his initials. Holding the paper eye level and at arms length, close the left eye and look directly at the X as the paper is moved toward and away from the face slowly until initials disappear. This is the Natural Blind spot.

Show charts of optical illusions and ask the members of the group to answer predetermined questions about these figures.

Show 2 charts, one with a white background and the colors white, black, purple, yellow, blue, red, and green. The other with a black background and the same seven colors. Expose each chart for two seconds, four seconds, eight seconds, and continue until all colors are seen by each member of the group. Make a record of each members time.

Relate the above to driving during the dark hours and to driving on a snowcovered surface.

	Instructional Strategy
II. *PRESENTATION*	
A. *The importance of vision in driving* 1. Ways visual defects may cause a driver to be hazardous to self and other drivers. 2. How it is possible for one to have serious eye defects without being cognizant of it.	A. *Lecture and group discussion* 1. Show film "Knights of the Highway." 2. Invite an eye specialist to discuss with the group. Use a driver licensing examiner.
B. *Visual Acuity*	B. *Class discussion. Administer the "Acuity vision" test. Students*

	wearing glasses should be tested first without glasses.
1. Define visual acuity	1. Discuss the following questions. a. What is average acuity vision? b. What is the difference between 20/20 vision and 20/30 vision?
2. State requirements	2. Check state code and discuss the provisions.
3. Compensating for a deficiency in visual acuity	3. Class discussion.
C. *Field of Vision*	C. *Lecture*
1. The distance to both sides one can see while looking ahead (peripheral vision)	1. Discussion and Demonstration.
2. Less than 70 degrees to either right or left is a hazard, 90 degrees is normal	2. Discussion and graph.
3. Cardboard protractor test	3. Example
4. Tunnel vision	4. Lecture and discussion
5. Compensation: turn head frequently from side to side, avoid night driving, be alert.	5. Discussion
6. Binocular vision: the needed fusion of the images from both eyes a. dominant eye b. double vision	6. Lecture and discussion.
7. Factors affecting vision a. blind spots b. windshield distortion and glare c. speed (1) as speed increases field of vision decreases (2) side view over 50 MPH is speed smear (3) highway hypnosis	7. Lecture and questioning
D. *Distance Judgment*	D. *Lecture*
1. Ability to judge relative distance of objects	1. Discussion. Measure several distances between points or objects in the classroom in advance and then have pupils

	give these distances.
2. Rod test with miniature autos	2. Demonstration
3. Compensation a. allow plenty of room for maneuvers b. use objects of known size for reference c. extreme care at night	3. Lecture and discussion.
E. *Night Vision*	E. *Lecture*
1. Ability to see clearly under conditions of low illumination	1. Discussion
2. Visual purple	2. Lecture
3. Glare resistence, ability to see against glare, and recovery time	
4. Glare resistance, ability to see after having been blinded by a strong light	
5. Correction or Compensation Vitamin A and drive slower	5. Discussion
6. Things to remember: a. Always depress headlights when approching cars b. Reduce speed, don't overdrive headlights c. Never look directly into oncoming headlights d. Oncoming headlights hide objects on road e. Wear sunglasses in day NOT NIGHT f. Keep interior lights off and windshield clean	6. Lecture and question.
F. *Color Recognition*	F. *Lecture and discussion*
1. 7-½% of male drivers have color deficiency	1. Discussion. Use Ishiara test or yarn test.
2. ½ of 1% of lady drivers have color deficiency	
3. Compensation a. recognize signs by shape b. watch traffic movement	3. Discussion
4. Traffic signal lights are not standardized.	

G. *Reaction Time*	G. *Lecture*
1. Simple: ½ sec.	1. Demonstration
2. Complex: ¾ sec.	2. Demonstration
3. Factors	3. Discussion
a. attention	
b. perception	
c. interpretation	
d. decision	
e. action	
4. Detonator test	4. Example
5. Total stopping distance = reaction + braking	5. Lecture and graph
6. Danger zone = total stopping distance	6. Lecture and graph
7. Braking distance increases with square of speed	7. Lecture, graph, and discussion.
8. Brakes stop wheels not cars	8. Discussion
9. One car length per 10 MPH	9. Discussion
10. Always anticipate trouble	10. Discussion
H. *Interpreting Psycho-physical Tests*	H. *Psycho-physical testing*
1. Judgment isn't measure	1. Discussion.
2. Fast reaction isn't always best, i.e. quick braking on ice.	
I. *Hearing*	I. *Discussion*
1. Makes one aware of distance, speed and direction of other cars	
2. Audiometer test	2. Example
3. Watch test	3. Example
4. Compensation: hearing aid, sideview mirrors	4. Discussion
J. *Fatigue*	J. *Lecture*
1. If tired pull off road and turn off lights	1. Discussion
2. Stimulants sometimes help to relieve boredom, or take a walk	
3. Take off shoes	
4. Play radio	
5. Engage in conversation	

III. *APPLICATION*

A. Administer the acuity vision, field of vision, distance judgment, night vision, and color vision tests.
B. Have student take the results of the above tests and arrange them in

"pictorial" (graph) form. Also have each student spot his vision on each graph.

C. Administer the "reactometer" test to each pupil and record the results. Next have each pupil check his own reaction time with the average reaction time of drivers.

IV. *EVALUATION*

A. How does one compensate for "tunnel" vision?
B. What is average "reaction" time?
C. What physiological reaction takes place when the eyes are submitted to extreme bright light?
D. How does one compensate for a deficiency in color vision?
E. When is one considered to have "tunnel" vision?

STUDENT LEARNING EXPERIENCES

A. At designated times permit students to bring friends to the classroom and administer the psycho-physical tests to them.
B. Have a committee visit the state driving license departments to learn how the licensing inspector checks vision.
C. Conduct a study of visual requirements for licensing in each state adjacent to Oklahoma.

INSTRUCTIONAL MATERIALS RELATED TO THIS TOPIC

A. *Films*

1. Aim High	National Safety Council	11 min.	B&W
2. Get The Big Picture	National Safety Council	11 min.	B&W
3. Keep Your Eyes Moving	National Safety Council	11 min.	B&W
4. Leave Yourself an Out	National Safety Council	11 min.	B&W
5. Make Sure They See You	National Safety Council	11 min.	B&W

B. *Film Strips and/or Slides*
1. Perception of Driving Hazards, Part I, II, III Shell Oil Co.
2. Seeing Habits for Expert Driving, Ford Motor Co.

C. *Other Materials*
1. Record - Seeing Habits for Expert Driving, Ford Motor C.
2. Test Booklet for Rating Psycho-physical tests, AAA.

UNIT FOUR

CONSTRUCTION AND OPERATION OF THE AUTOMOBILE

OBJECTIVES:

1. To teach pupils the way power is generated.
2. To teach the way power is transmitted from the engine to the rear wheels.
3. To teach the function of each part of the power train.
4. To teach the purpose of the ignition, cooling, braking, and steering systems of the automobile.

I. *PREPARATION*

Have pupils discuss the following questions on the automobile.
1. What makes the automobile move?
2. How does the gasoline get from the tank to the engine?
3. How is the power created in the engine?
4. How is the power carried to the rear wheels of the car?
5. When turning a corner, what allows the outside wheel to turn faster?

	INSTRUCTIONAL STRATEGY
II. *PRESENTATION*	
A. *The Engine* 1. Generates power (power plant) a. four stroke cycle (1) intake (2) compression (3) power (4) exhaust	A. Lecture - The heart of the automobile. 1. Show the film, "Four Stroke Cycle of the Internal Combustion Engine." Use engine chart - mock-up for discussion.
B. *Ignition (electrical system)* 1. battery 2. starter switch 3. coil 4. distributor 5. ignition points 6. spark plug 7. alternator or generator 8. voltage regulator	B. Use ignition chart mock-up for discussion.
C. *Fuel System* 1. tank 2. line 3. pump 4. carburetor	C. Use fuel system chart for discussion.
D. *Operation of Power Train* 1. components of power train a. clutch b. transmission c. drive shaft, "U" joint, and slip joint d. differential e. rear axle f. wheel	D. Use automobile chassis chart for discussion.
E. *Braking System* 1. types of brakes a. foot (1) power (2) conventional b. parking	E. 1. Class discussion - What are the most common type brakes found on passenger cars? Use braking system chart.

F. *Steering System*	F. Use "Steering Systems" chart for discussion.
G. *Cooling System* 1. radiator 2. water pump 3. fan 4. thermostat	G. Use "Cooling Systems" chart for discussion.
H. *Lubrication System*	H. Use "Lubrication Systems" chart for discussion. Discuss the "Pressure System" and the "Oil Splash System."

III. *APPLICATION*

A. Have students check oil in the engine.
B. Place car on oil rack and show the drive shaft and "U" joints to students.
C. Show students how to determine the temperature of the coolant from temperature gauge in driver's compartment.
D. Show student fuel gauge in driver's compartment.
E. Check parking brake by setting brake and placing in forward motion. If car moves with ease, brake needs adjusting.

IV. *FOLLOW-UP (EVALUATION)*

A. What information does the temperature give?
B. What purpose does a lubricant serve?
C. Why are "U" joints necessary in the power train?
D. What are the two kinds of brakes on a passenger car?
E. What are the four parts of the cooling system?
F. What are the names of the parts of the four-stroke cycle of the engine?
G. What is the main purpose of the differential of the power train?
H. Prepare a chart showing different parts of the power train and have pupils name them and give the function of each part.

STUDENT LEARNING EXPERIENCES THAT RELATE TO THIS TOPIC

A. Check family car and locate some one part related to each system.
B. Develop a chart for keeping record of oil changes and lubrication jobs.
C. Check car manual and work out a maintenance schedule.
D. Ask five adults a question about how power is created in the engine. Record the answers.

UNIT FIVE

THE DRIVING COMPARTMENT

OBJECTIVES:

1. To teach pupils the name, location, and purpose of the INFORMATIONAL GAUGES.

2. To teach beginning drivers the names, location, and purpose of the STARTING INSTRUMENTS.
3. To teach beginning drivers the name, location, purpose, and use of the CONTROL INSTRUMENTS.
4. To teach beginning drivers the name, location, and use of the SAFETY INSTRUMENTS.

I. *PREPARATION*

In order to operate a car correctly it is necessary that each driver become familiar with the driving compartment. In this compartment will be found the gauges, starting instruments, control instruments, safety instruments, and others that may be classified as miscellaneous. It is important that each driver know the location and use of each item in the compartment.

	INSTRUCTIONAL STRATEGY
II. *PRESENTATION*	
A. *Informational Gauges.* 1. Fuel 2. Oil Pressure 3. Temperature 4. Ammeter 5. Speedometer 6. Odometer	A. Discussion - Determine the use of each gauge through pupil-teacher discussion. Make a larger chart of the gauges in the driving compartment of the driver education car and show the location of each gauge. Use the service guide in the glove compartment and make a transparency for use to locate gauges.
B. *Starting Instruments* 1. Ignition switch 2. Starter switch 3. Choke	B. Through discussion determine the use of each of the instruments. Make a large chart showing the location of each instrument in the driver education car. From the Service Guide make a transparency or use an opaque projector to show the location of these instruments.
C. *Control Instruments* 1. Accelerator pedal 2. Hand throttle 3. Steering wheels 4. Foot brakes 5. Parking brake 6. Parking brake indicator 7. Clutch pedal 8. Gear selector 9. Overdrive lever	C. Through group discussion determine the purpose of each control instrument. Students should copy these in the notebook. Take the large chart used in A and add the control instruments in the correct location. Use the Service Guide on an opaque projector or make a transparency of the location of these instruments on it.

D. *Safety Instruments* 1. Light switches a. High beam b. Low beam c. Park d. Interior 2. Brake lights 3. Turn indicators 4. Horn 5. Visors 6. Windshield wiper 7. Windshield washer 8. Heater and defroster 9. Inside and Outside mirrors 10. Seat adjustment lever 11. Air vents 12. Seat belts	D. Through discussion with pupils determine the purposes of each safety instrument Take the large chart and add these safety instruments to it in the correct location found on the driver education car. Use the Service Guide on an opaque projector to show the location of these instruments. Make an overlay to use on the transparency made in A and show the location. Have pupils copy these in their notebook.
E. *Miscellaneous* 1. Heater 2. Radio 3. Ash tray and lighter 4. Glove compartment 5. Air conditioner 6. Litter bag	E. Through discussion determine the use of each item. On the large chart used in A draw each item in the location they are found in the driving compartment of the driver education car.

III. *APPLICATION*

A. Take pupil to the driver education car and have students identify each of the gauges. Instructors should then review use for each gauge.

B. Have pupils point out the location of each starting instrument in the Driving Compartment of the driver education car. The instructor should demonstrate the correct way to use starting instruments and then permit pupils to use them with supervision.

C. Demonstrate the use of the control instruments. Permit pupils to use them with his supervision.

D. Demonstrate the correct operation of each safety instrument. Then have students operate them under supervision.

IV. *FOLLOW-UP (EVALUATION)*

A. List the five divisions of the driving compartment.

B. How should the foot be used on the accelerator?

C. How can you determine if the "high" beam of the headlights are on?

D. What does the temperature gauge tell you?

E. How can one determine the miles per gallon of gas used?

F. What is the correct position of the hands on the steering wheel?
G. What does the parking brake indicator tell you?
H. What is the purpose of the parking brake?
I. What might cause the temperature gauge to show "hot"?

STUDENT LEARNING EXPERIENCES THAT RELATE TO THIS TOPIC

A. Have students make a chart (drawing) showing each item in the Driving Compartment of the family car.
B. List the items found in the driver education car that are not in the family car.

UNIT SIX

SIGNS, SIGNALS AND MARKINGS

OBJECTIVES:

1. To teach pupils the shape, legend, location, color combination, and purposes of signs.
2. To teach pupils the description, color, location, and purposes of roadway markings.
3. To teach pupils the kind, color, location, meaning, and purpose of traffic signals.
4. To teach pupils to see and use signs, signals, and markings correctly when driving an automobile.

I. *PREPARATION*

Have pupils list on paper the signs they have observed recently.
Give shape and color combinations of each of these.
Ask pupils to keep this list for comparison on the topic discussed.

	INSTRUCTIONAL STRATEGY
II. *PRESENTATION*	
A. *Signs (Regulatory)*	A. Discuss meaning of regulatory.
1. shapes	1. Draw on blackboard. Use poster "Signs of Life". Which can be seen for greater distance shape of sign or legend on sign?
2. color combination	2. Make signs on charts using various colors of paper to show color combination.
3. location of signs	3. Discussion. What is the basic purpose for the sign? Who has responsibility for placing signs? Where should the signs be placed?
B. *Warning Signs*	B. Discuss where located and the purpose they serve.
1. Meaning	
2. Shapes	

3. Color Combinations	
4. Location	
C. *Guide Signs*	C. What information do Guide Signs provide for the driver?
1. Shape	
2. Classification	
3. Location	
4. Color combination and legend	
D. *Markings*	D.
1. Purposes	1. Discuss the definite and important function in controlling traffic.
2. Kinds	2. Discuss channeling traffic, dividing lines, lane lines, crosswalks, turns, pavement edge, no passing, stop, snake, and parking stalls.
3. Color and description	3. Prepare poster showing colors and description.
E. *Traffic Signals*	E. Discuss. Have pupils discuss: more orderly traffic, increased capacity for traffic, reduction of accidents, expedition, flow, and adjustment to traffic conditions.
2. Types	
a. circular overhead	a. Discuss each color - Red, Amber, Green.
b. colored "x"	b. Adjustments for having more lanes of traffic in one direction than in the other.
c. green arrows for traffic control	c. Discussion
d. pedestal	d. Discussion
e. pedestrian	e. Discussion

III. *APPLICATION*

A. During the laboratory instruction period have pupils list the different signs they observe and classify them as follows:
   1. Kind, shape, color combination, and location in relation to the roadway and why needed.

B. Repeat same as in A except classify the road markings as follows:
   1. Name, color, description, location on roadway, purpose served, and need.

C. Repeat as in A except classify traffic signals as follows:
   1. Name, position of colors, location on roadway, purpose served, and are they justified.

EVALUATION (FOLLOW-UP)

A. What is the meaning of a "regulatory" sign?
B. List at least two shapes of regulatory signs.

C. What is the meaning of a "warning" sign?

D. In what way do "guide" signs assist the driver?

E. Why is the "red" color on the pedestal type signal placed at the top?

F. What is the description of a "dividing" line on the street?

G. What color are pavement edge markings and what purpose do they serve?

H. How many lines are necessary for a crosswalk?

I. Is a "railroad" crossing sign a regulatory or a warning sign?

J. Give the shapes of the following signs: "stop" and "yield".

K. At what locations on a street are signs placed?

L. What is the purpose of a "stop" line?

M. Make a diagram showing how "markings" can be used to channel traffic.

N. On an intersection layout show two markings: one "right turn only" with an option of going "straight ahead".

STUDENT LEARNING EXPERIENCES THAT RELATE TO THIS TOPIC

A. Have each student draw at least twelve different signs giving color combination, shape, legend, and type.

B. Visit a traffic engineer and learn how location of signs are determined.

C. Have each student draw a busy intersection found in the local community, showing all traffic controls and the purpose each serves.

UNIT SEVEN

OBSERVANCE AND ENFORCEMENT OF MOTOR VEHICLE AND TRAFFIC LAWS

OBJECTIVES:

A. *To learn why:*
   1. Traffic laws should be obeyed voluntarily.
   2. The driver has no right to decide which laws should be obeyed and which should not.
   3. Violations of traffic laws should be considered as serious as violations of any other laws.
   4. Violations eventually result in accidents or traffic problems for the highway user.

B. *To emphasize:*
   1. The importance of knowing the laws governing vehicle operation in any state in which the driver intends to travel.
   2. Laws and regulations unfamiliar to beginning drivers.

3. That one should never "take for granted" the beginning driver's knowledge and understanding of all laws, rules, and regulations pertaining to driving.

I. *PREPARATION*

An important phase of traffic safety is the attitude of the individual toward traffic law observance. Voluntary obedience to traffic laws is absolutely necessary on the part of each individual driver.

Many motorists are outlaws in traffic but would not, under any circumstances, be outlaws in any other activity. However, it must be understood that any deviation from law is a violation. Far too many motorists do not look upon traffic violations as wrongs until they are educated the hard way - - by arrest. They should stress the fact that we, as individual drivers, have no right to decide which traffic law (especially speed laws) should be violated and which should not.

All drivers should respect law enforcement officers and voluntarily support and respect them in their efforts to enforce the laws and reduce traffic accidents and deaths. So often a driver makes the statement, "Why don't the police do something?", when he, as a citizen, has done nothing to help correct many similar situations.

Americans travel many thousands of miles in different areas of the country each year. Consequently it is necessary that traffic laws, rules, and regulations become as nearly alike in all states as it is possible to make them. The more differences encountered, the greater the chances of unintentional violations which eventually result in problems.

The instructor should point out the need for all drivers who intend to travel in other states to become familiar with the rules and regulations of each state before attempting to drive there.

II. *PRESENTATION*

Good attitude toward law will need less strict enforcement. This depends upon proper education, engineering, and enforcement.

A. *Attitudes*
   1. Good attitudes lead toward basic goals in driver education. The best possible situation on our streets and highways would be: everyone would always drive and walk according to existing laws, rules, and regulations. Ideally everyone would do this voluntarily. Laws governing driving are set up to help protect drivers and pedestrians.
   2. Poor attitudes result in more stringent laws and enforcement.

B. *Education engineering, and law enforcement are necessary for safety and efficency on our streets and highways.*
   1. Education - to educate and train drivers to be safe and efficient drivers and also obtain necessary skills to become a skillful driver.
   2. Engineering - proper engineering is necessary when designing

and building highways, streets, and proper regulatory signs and their placement.

3. Enforcement - To most drivers this means a policeman.
   The policeman instructs or warns drivers, issues tickets ordering the driver who has violated a law into court.
   It is difficult to separate education and enforcement.
   a. Policemen are responsible to law abiding citizens to protect them from foolish, unsafe acts, which if allowed to go unchecked, would endanger everyone.
   b. Another necessary aspect of police work is direction of traffic.

C. A major problem on our highways is the ever increasing number of automobiles on our highways.
   1. Motor vehicles are practically everywhere. Automobiles are like water: they seem to move in streams, on highways on city streets.
   2. Manufacturers are building more and linear cars. The states and cities are building many streets and highways, but are almost unable to keep up with the number of automobiles and lineation of the newer automobiles.

D. *Objectives of traffic courts*
   1. Educate drivers
      a. Interpretation of laws
      b. Understand why law exists
   2. Penalize violators
      a. Determines guilt
      b. Assign penalties

E. *Point Systems*
   1. Recording traffic violations
      a. Points are charged according to degree of violation.
      b. Violation assigned a standard number of points
   2. Procedures
      a. Warning letter sent to violator when certain number of points are accumulated.
      b. Special interview granted if point score reaches a high level
      c. Suspension for a short or long period of time if an extremely high point score is reached.
      d. Repeated or flagrant violations may result in revoking license.

III. *APPLICATION*

Briefly explain the need for all citizens to obey all of our laws voluntarily especially those governing the use of motor vehicles. Point out the fact that it is impossible to police all drivers at all times; therefore, for our own safety, it is necessary that we be good traffic citizens on our own accord at all times. Mention the fact that traffic officers are on duty for the benefit of all and that we should be glad when we see them along the roadways, knowing that they are there to protect us rather than to catch us. Try to bring about a realization of what chaos would develop if none of these officers were present to regulate traffic.

A. Have the class discuss the points in the lesson which impressed them most. Ask each student who responds to state why this part impressed him most.

B. Lead the class into a discussion about the attitude all should develop toward traffic law observance and why this is so important.

C. Have the class discuss what interested them most.

D. Ask for volunteers who have traveled out-of-state and encountered laws, rules, and regulations different to those of the home state.

E. Research and reports.

F. Resource personnel.

IV. *FOLLOW-UP (EVALUATION)*

A. What would be the best possible situation on our streets and highways?

B. Why does it become more and more important each year that more of our citizens voluntarily attempt to obey all traffic laws?

C. What is the most unpleasant job of a traffic officer?

D. You are driving on an expressway — you notice you have just passed the exit you intended to take — what do you do? Why?

E. One of your friends wants your car to "sound" better while running so he suggests that the two of you take off the muffler and replace it with a resonator type muffler— what will your answer to him be? Why?

F. You are stopped by an officer and charged with a traffic violation. You tell the officer that you did not know that what you did was against the law. What would the officer's answer most likely be?

EMPHASIZE

A. A number of terms new to a beginning driver are given in the lesson. Some of these are suspended license, revoked license, legal equipment, illegal equipment, prima-facie speed laws, minimum and maximum speed laws, and traffic control devices. The students shoud be alerted to look for an explanation of these terms and to understand their meaning well enough to discuss each.

B. What is the real problem in traffic today? Students should look for the various suggestions given for improving this situation.

UNIT EIGHT

RULES OF THE ROAD

PART ONE: MAN MADE LAWS

OBJECTIVES:

1. To acquaint drivers with the Rules of the Road and how these rules came into existence.

2. To show reasons why the Rules of the Road are essential to safe driving.
3. To teach the Rules of the Road and correct application of them.
4. To show how standardization of the Rules of the Road can bring an improvement in traffic.

I. *PREPARATION*

Organized activity of necessity requires rules and regulations. Violations require assessment of penalties. Varying violations merit different degrees of penalties.

Rules and regulations have been established to regulate traffic on the streets and highways. These rules and regulations fall into two classifications, (1) Manmade Laws, and (2) Natural Laws. The Manmade laws on a local level are made by a City Council, Board of Trustees or some other governing body.

State laws (man-made) are written, discussed, and passed upon by the State Legislature.

On the national level we have a National Committe on Uniform Traffic Laws and Ordinances that developed the "Uniform Vehicle Code" and upgrades it from time to time.

Many states and local governments are working toward the adoption of the Uniform Vehicle Code. The Adoption of this Uniform Vehicle Code would do much to assist drivers by standardizing the rules on a broader level.

Just as we need officials to enforce the rules in organized activities, we need officials that are charged with the responsibility of the enforcement of the man-made laws. We want to discuss these laws more in detail later on.

The Natural Laws were established by the Diety. These laws cannot be broken or violated by drivers without paying a penalty. Each violation brings with it penalties which are meted out at the time the violation is committed.

INSTRUCTIONAL STRATEGY

II. *PRESENTATION*

A. *Man-made Laws*
   1. Lane Driving
      a. two lane
      b. multi-lane
   2. Lane Numbering
   3. Lane Changing
      a. Right to left
      b. Left to right
   4. Street and Roadway Markings

a. Lane lines
   (1) urban
   (2) rural
b. No passing
c. Pavement edge lines
d. Pavement-width transition
e. Channelizing lines
f. Turn markings
g. Stop lines
h. dividing lines
i. Snake line
j. Crosswalk

5. Types of Intersections
   a. Closed
   b. Open
   c. Signalized
   d. Two-way stop
   e. Freeway exit and entrance
   f. Cloverleaf
6. Left Turns
   a. Two-way to two-way
   b. Two-way to one-way
   c. Onto a divided highway and from a divided street
   d. One-way to a one-way
   e. One-way to a two-way
7. Right Turns
8. Turn-About
9. Off-set Intersection
10. Right-of-Way Regulations
    a. Same time rule
    b. First car rule
    c. Straight ahead traffic
    d. Moving from a multilane roadway to fewer lanes of traffic
    e. From parallel park
    f. From an angle park
    g. From a driveway onto a street
    h. Pedestrian
11. Parking
    a. Parallel
    b. Angle
    c. Hill
12. Passing
    a. Curves, hills, and

railroads (1) local and state ordinances (2) uniform vehicle code	
b. passing a slower moving car (1) acceleration	(1) Study physics of driver.
(2) start well back (3) check behind and to the side (4) check path ahead (5) signal for lane change	
(6) starting acceleration	(6) Emphasize acceleration. Car will accelerate faster from 0 to 50 MPH than it will from 50 MPH to 70 MPH.
(7) build to 15 MPH speed priority over the car being passed	(7) Review necessity for knowing your ability to judge distances.
(8) recheck path ahead	(8) Stress importance of seeing everything that relates to this maneuver.
(9) make decision to either pass or drop back into original lane	(9) Use magnetic board to show position of the "passing" car as it relates to the car being passed. Blackboard may also be used. Emphasize that to pass you have reached the "Point of No Return" until you make the "pass" and can move back into the correct lane.
(10) concentrate on the center lane well ahead for any approaching car.	(10) Use magnetic board to show position of the car making the pass.
(11) check for making a safe return	(11) Use poster which shows the left headlight of car just passed in the rear view mirror. Stress importance of signaling and moving back promptly.
13. Being Passed	13. Read the legal requirement from the driver's manual. Discuss the reason for such regulations.
14. Following Distances	14. Use several small cars on a mag-

netic board to show how the rule "one car length for each 10 miles of speed" applies to traffic. Whose car does the law relate to? Discuss the logic behind the legal requirement on following distance.

15. "Legal" stop at "stop" sign and "Red" signal light.
16. Driving on curves - Natural forces
    16. Discuss reason for reducing speed before entering curve.
    a. Use a turn table at slow speed as you toss a coin on the table to see what occurs. Now turn to high speed and toss the coin on the table to see what occurs. How does "Banked" roadway help on curves? How can driver determine safe speeds on a curve?
17. Speed limits
18. School Bus Law governing drivers
    18. When does a bus become a school bus? Discuss state regulations that apply to drivers when pupils are getting on and off buses. Does the same regulation apply on a "divided" roadway? Do pupils cross in front or behind "school buses"?
19. Driver communications
20. Emergency vehicles
    a. ambulance
    b. law enforcement vehicle
    c. fire equipment
    20. Discuss legal requirements that apply to other type vehicles Why are these regulations needed?

III. *APPLICATION*

A. Students should be asked to draw each marking on a diagram of a street and give the reason for each.
B. Simulate each "right of way" situation in an off-street area and have each pupil drive a car illustrating them.
C. Visit a police department traffic division, and get a report on high accident locations in the area.
D. Talk with at least four bus drivers to see if most motorists observe the "School Bus" regulation.

IV. *FOLLOW-UP (EVALUATION)*

A. What street marking is used to indicate a "Right Turn Only"?
B. Where is lane one found on a street?

C. Give the description of a "dividing" line.

D. When making a lane change, what is the "second" step?

E. Explain the following Right of Way rules:
1. Same time rule, 2. first car rule, 3. straight ahead rule, and 4. angle parked car.

F. How far in advance should signals be given?

G. Draw a lay-out of a street showing the correct markings for a two-way street.

H. What lane should the car be in for making a left turn?

I. What is the purpose of a "dividing" line?

J. What is an "open" intersection?

K. Where are "reference" points imagined to be on a street?

L. Where is the "drive" lane for a right turn?

M. When is a car "legally" stopped at a stop sign?

N. What are the three principal steps of parallel parking?

O. Where is the "pivot" point on the car used for angle parking?

STUDENT LEARNING EXPERIENCES THAT RELATE TO THIS TOPIC

A. Make a survey of at least five locations where markings are used to restrict traffic and tell whether you think they are justified or not.
B. Visit traffic engineers and find out how the need for street markings are justified.
C. Ask a committee to check at least 25 cars that are parked on an incline (hill) to see and list position of the front wheels.
D. Have students check traffic at a four-way (closed) intersection and list the number that make a legal stop. An illegal stop.
E. Draw examples of the following "Right of Way" rules.
1. first car, 2. same time, and 3. multi-lane to a two-lane street.

PART TWO: LAWS OF MOTION (NATURAL LAWS)

OBJECTIVES:

1. To acquaint pupils with the laws of motion and how each of them relate to safe driving.
2. To acquaint pupils that all forces occur in pairs.

I. *PREPARATION*

Living in the age of streamlined trains, airplanes, and automobiles has acquainted us with many examples of motion. Motion or the characteristics of bodies in motion you no doubt use without hesitation, such as speed, inertia, velocity, acceleration, rate, momentum, centrifugal

force, centripetal force, gravity, kinetic energy, force of impact but can you relate them to the driving of an automobile?

This is what we hope to do in this lesson.

Definition of motion is to recognize that a body in motion undergoes a continual change of position relative to some other body or object.

A simple example of relativity of motion, a passenger in an airplane in flight is at rest when compared with other passengers in the plane but he is in motion in respect to objects and places on the earth. Another example, driving by a parked automobile is quite different to overtaking and passing a moving car.

Motion may be in a straight line, called *rectilinear* motion or in a curved line, called *curvilinear*. Uniform motion in a straight line continues as long as the forces acting on the body remain balanced. When the forces become unequal or unbalanced, some change takes place in the motion of the body; the change may be speed, it may be direction or it may be both.

Ordinarily in dealing with the motion of airplanes and automobiles, we must deal with *variable* motion rather than uniform motion and that creates quite a different problem.

Frequently in dealing with variable motion it is all right to use the average velocity which is maintained for a given time.

NOTE: 60 M.P.H. = 88 ft. per second, the number of M.P.H. multiplied by 22/15 or 1.47 equals the corresponding number of feet per second.

Discuss - 1. Can natural laws be broken?
2. When are violations of natural laws penalized?

	INSTRUCTIONAL STRATEGY
II. *PRESENTATION*	
A. *Definition of Inertia*	A. Write definition on chalk board or project from transparency onto screen and have students copy it in notebook.
1. A state of rest is the natural thing.	1. Discuss at some length, law of inertia with class.
2. Moving objects continue to move in the same direction until some force acts upon them.	2. Demonstrate law of inertia.
B. *Law of Interaction*	B. Discuss Newton's third law of motion.
	1. For every action or force there is an equal or opposite action or force. All forces occur in pairs. Each force is

	a twin of some other force. Examples: a. A car going uphill must have added power (action) to offset the pull of gravity (reaction). b. When the foot brake is applied in stopping the car, the brake bands and drums (reaction) are counteracting *momentum* (action). c. Centrifugal force and centripetal force are twins but act in opposite directions. Discuss: Does centrifugal or centripetal force cause the car to leave the roadway on a curve? How does a bicyclist overcome centrifugal force.
C. *Gravity* 1. Effect on driving a. downhill	a. Place a small spring wound car at the top of an inclined surface and release it.
b. uphill	b. Place the small spring wound car at the bottom of the inclined plane and release it.
c. level surface	c. Place the small spring wound car on the level surface and release it. Discuss the differences in the speed of each car on each surface.
d. stopping distances downhill	d. Repeat a, b, c, above. How is gravity reduced here?
e. engineering changes to reduce pull of gravity	e. Lecture - Lowered the center of gravity which makes it difficult to upset the modern car under normal driving conditons. When a luggage rack is placed on top of a car the center of gravity is raised and must be considered on curves. What about the present

	fad of raising the body of car above wheels? Is the center of gravity changed? As the weight of the body of the car is raised or an object is placed on the top, the center of gravity is raised.
D. *Centrifugal Force*	D. Driving a car on a curve
1. counteractors	1. Centripetal force in the form of frictional grip, gravity, and a banked roadway.
2. driver control of car on curve	2. Through use of the steering wheel front wheels are turned and keep car in proper lane. Discuss position of the car in drive lane to avoid a head-on collision with an oncoming car, both on inside and outside of curve.
3. results of driving on a curve when centrifugal force is stronger than its counteractors	3. Use a three speed turn table. Run at lowest speed, toss a coin onto the table to see what occurs. Now increase table to top speed, toss coin onto table and note the difference. What factor caused the difference?
E. *Friction*	E. Ask students to snap their fingers. The surface of the forefinger and thumb create friction when rubbed together. Ask students to repeat snapping fingers. Now ask each student to moisten the finger and thumb tips with tip of tongue and snap fingers again. Note: to moisten reduces friction.
1. Why is friction needed to drive a car?	1. To start, stop, and steer the car. Tire surface must come in contact with road surface or car will not move.
2. Friction for stopping a car	2. Lecture - Brake shoes and brake drums. Tire surfaces on road surface. Stress size of tire surface on road surface (each tire surface size of palm of hand).
3. Need for decreasing	3. Lecture - Lubrication of mov-

friction	ing parts.
4. Need for increasing friction	4. Wet and icy road surfaces. Salt and sand are applied to surface. Place a small spring wound car on a dry glassed surface and start it in motion. Now place soap suds on the glassed surface and start car in motion. Is there a difference? Why?
5. Tire treads versus friction on road surfaces	5. Use three sections of tires, each with different amounts of tread from good tread to no tread. Place a small weight on tire and attach a rubber band to the section of the tire with the least tread and place it on a soapy glass surface and pull it. Now do the same thing with the other two section of tires. Which section indicated the greatest amount of friction? Which the least amount? Why? Relate this to the kind of tread needed on the tires on the car we drive.
6. Traction	6. The amount of frictional force present for controlling a car. Example: Pumping the brakes when stopping a car on an icy surface helps to retain the "traction" and control of the car.
F. *Acceleration*	F. Discussion - Have students give the definition of acceleration. What is the difference between acceleration & velocity (speed)? Acceleration is the change in velocity which takes place in one unit of time. The change in speed from 0 to some new speed.
1. Kinds of acceleration a. positive	a. Lecture - Does a car accelerate from 65 to 75 MPH at the same rate as from 0 to 65? See page 14 "Physics and the Driver."
b. negative	b. Removing the pressure of

	the foot on the accelerator. Applying brakes or going up a grade slows the speed.
2. Air resistance	2. An appreciable factor of resistance begins at 40 MPH or more in an automobile.
3. When is a knowledge of acceleration of extreme importance while driving an automobile?	3. Discuss - Hazards in overtaking another automobile. Passing a parked car with another car approaching from the opposite direction on a narrow street.
G. *Force of Impact*	G. Discuss the meaning of kinetic energy and what happens to it when a car strikes an immovable object or another car while traveling at a high rate of speed.
1. increase in force of impact	1. Increases with the square of the speed.
2. decrease in force of impact	2. Decreases as the stopping distance increases.
3. What is the best way to use up kinetic energy?	3. Applying the brakes and making a smooth, gradual stop.
4. engineering to off-set kinetic energy	4. Shrubbery planted along the roadway and on the median on freeways.
H. *Momentum*	H. Discuss. What keeps the car moving after the foot is removed from the accelerator? What is the purpose of the "second" gear of a standard shift car?

III. *APPLICATION*

A. Place a milk bottle on the floor of the automobile and have pupils start it in motion without upsetting the bottle.
B. Ask pupils to drive the automobile on dry pavement at 20 MPH and stop it on a signal by the instructor, within 45′ of space.
C. Have pupils drive the automobile on a wet pavement at 20 MPH and try to make a smooth stop in 45′.
D. Have pupil cruise at a speed of 30 MPH for a distance, on a signal from the instructor the student increases the speed to 40 MPH quickly. Instructor should use a stop watch for timing purposes. Now have a student cruise at 50 MPH on a signal from the instructor, pupil accelerates as quickly as possible to 60 MPH. Again the instructor times the acceleration. Compare the two situations and discuss reasons for differences.
E. Place a bottle on the front seat and ask the driver to make a sharp turn. Which natural law is in action here?

F. Ask pupils to drive the automobile at 25 MPH on a level surface and approach a grade without depressing the accelerator any more than on the level surface.
G. Ask pupils to drive an automobile up an incline and down the other side without adjusting the accelerator. What natural force was acting here?

IV. *FOLLOW-UP (EVALUATION)*

A. Why is friction needed to drive a car?
B. What force is a twin of centrifugal force?
C. What are the two kinds of acceleration?
D. What is one sure way of reducing "Force of Impact"?
E. What natural law would cause the books which are laying behind the back seat of the automobile to move forward when an emergency stop is made?
F. Why is "relative" speed important in driving a car?
G. What happens to the stopping distance of an automobile when the speed is doubled?
H. Discuss the Law of Interaction.

STUDENTS LEARNING EXPERIENCES THAT RELATE TO THIS TOPIC

A. Have a committee of students acquire twelve accident reports from the police department that occurred during inclement weather and analyze the accidents to see how many could have occurred because of failure to adjust to the Natural Laws.
B. Visit an enforcement department and ask them the percent of accident fatalities occurring from a violation of the Natural Laws.

UNIT NINE

DRIVER VARIABLES AND ACCIDENT PREVENTION

OBJECTIVES:

To show:

1. The involvement of everyone in the traffic problem.
2. The factors involved in traffic accidents.
3. The need for wise use of the motor vehicles and for continuing training of the driver.

I. *PREPARATION*

This lesson should emphasize the fact that the modern motor vehicle has become an integral part of the lives of all of us. We will, of necessity, use it from the cradle to the grave. HOW we use it may determine how long this span of time will be. Unfortunately, too many feel that traffic accidents always happen to the other fellow.

Facts should be given concerning the annual cost of traffic accidents, the chances we have of being involved, the number of miles traveled annually and reasons for the rising cost of insurance. Safety factors of the vehicles, the roads, and the drivers should be discussed and the point made that we can improve all of these. Driver education is a means of improving the traffic situation. In this relation, driver education should not be only for young people in school but should include all drivers.

II. *PRESENTATION*

A. *The Driver*

1. *Fatigue*

a. Fatigue poisons induce sleep.
b. Rest produces body chemicals that counteract fatigue poisons.
c. Fatigued drivers become:

(1) Less vigilant
(2) Less perceptive to depth, distance, and speed
(3) Less able to react quickly
(4) Less able to resist glare

d. Compensatory factors

(1) Refuse to drive when fatigued
(2) Laws passed to keep truck drivers from driving more than 10 hours at a time, to be followed by 8 hours of rest. The 10 hours must be broken by periodic breaks.

e. Ways to partially offset drowsiness:

(1) Keep plenty of fresh air in the car.
(2) Engage in conversation.
(3) Pull off the road and take a nap.
(4) Park car and rest your eyes by pressing gently on your eyelids.
(5) Drink coffee or strong tea.
(6) Avoid alcoholic drink which causes further drowsiness.
(7) Rest frequently by getting out of the car and walking around.

2. *Intelligence (Driving knowledge)*

a. Identify or recognize hazardous conditions.
b. How to avoid or lessen hazards.
c. How to meet situation that cannot be avoided.
d. Driving skills and attitude.

3. *Hearing*

a. Hard-of-hearing are handicapped by:
(1) Not hearing other car horns in a passing situation
(2) Not hearing approaching trains at some rail crossings
b. Hard-of-hearing people can compensate by:

(1) Using pheripherial vision for all its worth
(2) Being exceptionally alert and watchful
(3) Using an additional rear-view mirror
(4) Using properly adjusted hearing aids

4. *Personal and Emotional adjustments*

a. Physiological
b. Emotional

5. *Age and Experience*

a. Young people are more capable to quick adjustment
b. Older people drive more cautiously
c. People who should adjust more rapidly have more fatal accidents

Age Group	Rates Per 100,000 Miles
16 - 21	1.5 %
22 - 27	1.0 %
28 - 47	0.7 %
48 - 65	0.6 %

6. *Outside effects upon drivers*

a. Radio and Car noises
b. Weather
c. Effects of other people in car
d. Effects of alcohol, narcotics or medicines
e. Rest and sleep
f. Carbon Monoxide
(1) Exhaust
(2) Tobacco

7. *Vision*

8. *Reaction time*

B. *Variables in Cars*

1. *Lights*
2. *Steering mechanism*
3. *Seats and seat belts*
4. *Transmissions*
5. *Acceleration*
6. *Brakes*
7. *Etc.*

C. *Other users of the Road*

1. *Slow moving vehicles*
a. Trucks
b. Farm equipment
c. Road machinery

2. *Fast-moving vehicles*
   a. Inter-city buses
   b. Passenger cars
3. *Two-wheeled vehicles*
   a. Motor scooters
   b. Motorcycles
   c. Bicycles
4. *Commercial vehicles that make frequent stops*
   a. Buses
   b. Taxis
   c. School buses
   d. Delivery trucks
5. *Unsafe Vehicles*
6. *Pedestrian*
7. *Animals*

D. *Road Variables*

1. *Road Surface*
2. *Road Width*
3. *Intersections*
4. *Condition of road*
   a. Wet
   b. Dry
   c. Covered with sleet or snow
   d. Foreign materials on road
5. *Lightning or roadway*
   a. Periods of bright and dark light make eye adjustments difficult.
   b. Dawn and dusk driving most hazardous
6. *Winds (sudden)*
   a. Encountered when car passes through a cut in a hill or mountain.
   b. Vacuum follows a truck
   c. High side winds on the open road
   d. All these can cause excessive swerving
   e. The only precaution is to be aware of these winds and adjust accordingly.
7. *Markings*
8. *Signals*
9. *Contour of surface*

III. *APPLICATION*

A. Stimulate class discussion on how to prevent a collision.
B. Show potential accident situations by use of films, magnetic boards, etc.

C. Plan panel discussions on "driver variables".
D. Have students determine specific accident prevention needs.

IV. *FOLLOW-UP (EVALUATION)*

A. Who is having traffic accidents?
B. Why do people have accidents?
C. What are your chances of being involved?
D. What is the fallacy in "Let those who have accidents pay for them"?
E. What are reasons for training all drivers?
F. What part does vision play in accident probability?
G. How many deaths, injuries, accidents occured during the lesson time?
H. Could you be involved in a traffic accident?
I. Observe student driving behavior near the school.
J. In what ways might a driver's emotion affect his driving skills.
K. Provide knowledge and attitude tests.

EMPHASIZE:

1. *Magnitude of the problem.*
2. *Responsibility of all highway users.*
3. *Challenge to all to help solve the problem.*

UNIT TEN

URBAN AND RURAL DRIVING WITH A DEFENSIVE OVERTURE

OBJECTIVES:

A. *To learn:*
   1. The ability to use each control of the automobile from habit before driving in traffic
   2. Knowledge of safe driving practices and immediate recall is essential to smooth traffic operation.
   3. The importance of signs or cues of potential hazards from other drivers and pedestrians and particularly those involving children and the aged.

B. *To recognize:*
   1. The illusion of security brought on by rural driving.
   2. And use road markings, traffic signs and signals.
   3. The need for teamwork with other drivers as the basis of defensive driving.

I. *PREPARATION*

The importance of learning how to start, stop, turn corners and control speed easily and automatically before attempting to drive in the city should be stressed, as is the ability to stay in or change lanes properly.

Once the beginning driver has learned these maneuvers well, he then should learn how to get into the street properly and safely, to follow

other vehicles at a safe distance, to obey all traffic laws because he wants to, to drop back when others pass and cut in, to slow down when entering intersections and accelerate after he has gotten well into the intersection, and to recognize and respond to hazards within his danger zone.

Many drivers who travel on country roads have illusions of security. Traffic is lighter in these areas, but speeds are usually higher. Actually, more motor vehicle deaths occur on rural roads than in urban areas.

Viewing the beauty of the countryside, a driver finds it hard to believe that dangers may confront him as he travels these roads. Even drivers who actually know of these hidden dangers often continue to drive too fast for conditions. The question is asked "Why?" A number of reasons should be given in answer.

The lesson deals with the importance of always driving defensively. The safe way to overtake and pass on country roads will be shown. Helping others who are passing you will be described as teamwork in driving.

The necessity for recognizing, understanding, and obeying road markings, signs, traffic control signals, and "clues to danger" will be stressed. The importance of always giving a signal for any intended maneuver — change of speed or direction — on these roads will be pointed out. This means giving an accurate signal in plenty of time for other motorists to adjust, then doing exactly what has been indicated by the signal.

Emphasis is to be put on driving at a speed that allows one to stop within the assured, clear distance ahead.

II. *PRESENTATION*

A. *Getting the Car into the Street*

1. *Backing Rules*

a. Walk around and behind car.
b. Look in all directions. Back your car slowly, looking over your shoulder.
c. Be aware of people on foot, especially children, in a position where they may step into your path.
d. Come to a stop before crossing the sidewalk. In some states, this stop is required by law. Always yield the right of way to pedestrians.
e. As you start to move into the roadway, yield the right of way to any approaching vehicle. This also is usually required by law.
f. On a quiet residential street, back slowly carefully into the lane for the direction in which you wish to go. Be aware of the position of any parked cars since one may remain in your blind spot as you back and turn.

g. On a busy street, back into the nearest lane and proceed in the direction of the flow of traffic — going around the block rather than backing across traffic.

B. *Driving in Traffic*

Pedestrians, cross streets, traffic congestion, REDUCED VISION and and many other factors require reduced speed in built up areas.

1. *Coming into a city from open highway*

a. Reduce speed as posted or 25 mph if no signs.
b. Always drive ahead.

2. *Safe Speeds*

a. Stay up with flow of traffic.
b. Do not let tailgaters and horn-blowers get you excited.
c. Remember at least 1 car length for each 10 mph driving speed.
d. Stay alert for pedestrians and other vehicles entering your buffer or danger zone.
e. NEVER increase speed to BEAT THE LIGHT.
f. Reduce speed when approaching a red light.
g. Watch cars behind you as you approach a light.
h. While waiting on a light keep your right foot on the brake pedal and gear shift in neutral.
(1) Don't creep.
(2) Always check cross traffic before pulling out on a green light.
i. Signal your intentions.
j. Progressive signal systems are so timed that driver moving at proper speed can make all green lights.
k. Speed at intersections
(1) Governed by conditions at time
a. A good rule: Never enter an intersection at a speed which you could not stop before striking any suddenly appearing object.
b. Always check for traffic, obstructions, pedestrians, etc.
(2) Governed by conditions after you enter an intersection.

3. *Rounding curves.*

a. Slow down before entering a curve.
(1) Your car may skid
(2) It may leave the road
b. Take a curve so that even passengers don't know of it.
c. Drive at a speed that you can stop in the assured clear distance ahead.

4. *Hills and hill crests*

   a. Never coast down hills.
   b. Use gears.
   c. Reduce speed as you approach a hill crest.

C. *Driving in Lanes*

1. *Many cities use pattern of lanes; a skilled driver can imagine lanes.*

2. *Choose lane carefully.*
   a. Consider provisions of law.
   b. When turning move into proper lane well ahead of time.
   c. If going straight ahead, remember that turning vehicles may stop and block traffic.
   d. If driving in lane next to parked cars, reduce speed.
      (1) Watch for pedestrians behind cars.
      (2) Watch for opening car doors.
      (3) Watch for cars pulling into street.

3. *Meeting other cars.*

   (Don't stand your ground if another car is in your lane.)
   a. Other driver may be asleep
   b. May be drunk
   c. Ill
   d. Drowsy
   e. Inattentive
   f. Incompetent

4. *Changing lanes*

   a. Always signal before changing lanes.
   b. Check to be sure lane is clear.
   c. Sequence is:
      (1) Make decision in advance
      (2) Check traffic
         (a) rear view mirror
         (b) Check over shoulder in direction of change
         (c) Signal
         (d) Move into desired lane

5. *Reversed Traffic Flow*

   a. Sometimes same lane used for opposite direction at different times of day
   b. Watch all signs for warning of this type of traffic.

D. *Making Right and Left Turns*

1. Good drivers always turn from proper lane into proper lane, watch signs and markings, since some lanes are designated for certain directions.

2. Make turns at slow speed, be ready for quick braking.

E. *Overtaking and Passing*

1. *Know rules (laws) in area where you are driving.*

   a. Some areas have special laws.
   b. Watch for signs and markings.

2. *Generally passing is done on left, but there are two exceptions:*

   a. When two (or more) continous lines are moving in same direction.
      (1) No lane transfer should be made.
      (2) Each moves independently of other.
   b. Vehicle turning left at intersection may be passed on right side.
   c. Some states may permit passing on right under other conditions.

3. *Passing is one of the most dangerous driving maneuvers, judge closely.*

   a. Speed of car you are about to pass.
   b. Your own car speed.
   c. The distance both will travel, before back in line.
   d. The assured clear distance ahead.
   e. The speed of the oncoming vehicle.
   f. The space available to move back into line of traffic.
   g. Any additional hazard.

4. *Possibilities confronting driver who wants to pass.*

   a. Error in judgment
   b. Impatience

5. *Don't make your own rule for passing — patience pays off.*

6. *Mathematics of Passing.*

   a. Allow enough space
   b. At 50 mph you need almost half a mile to pass a car going 40 mph.

7. *Precautions before passing:*

   a. Watch for signs and markings
   b. Look ahead before passing
   c. Know what is behind you
   d. Give the proper signal
   e. Sound your horn
   f. Return to the proper lane

F. *Some Common Hazards*

1. *Be able to recognize* DANGER IN THE MAKING.
2. *Reduced Visibility.*
   a. Reduction of visibility goes with city driving.
   b. Close moving traffic obscures danger zone.
      (1) Even traffic signals may be obscured.
      (2) Increased following distance increases visibility.
3. *The Stopped Bus*
   a. Passengers may not wait for bus to move, they may move out from behind (or in front) of it.
   b. Driver must anticipate such occurences and be ready to stop.
   c. Pedestrians rushing to catch bus jaywalk.
4. *The Manned Vehicle*
   a. Frequent starting and stopping characteristic of city driving.
   b. Adjust to actions of other drivers.
      (1) Whenever you see a drivers arm outside of the car, be ready for anything.
      (2) Drive defensively.
   c. Beware of stopped vehicles with driver at wheel.
      (1) Give plenty of room when passing and if you can't, stop!
      (2) Never stop on the road surface.
      (3) Be especially alert at night when stopping.
5. *Railroad Crossings*
   a. Some have watchman or guard at all times.
   b. Some automatic warning bells and lights.
   c. Always treat railroad crossings as very dangerous.
   d. After a train passes, look again before crossing.
6. *Pavement Edges*
   a. Keep on the pavement.
   b. Don't try to get back on at high speed.
   c. Never slam on your brakes.
7. *Tires Blowing Out*
   a. Inspect tires regularly
   b. Keep control of the car.
   c. Keep control of yourself.
   d. Steering is the most important thing.
      (1) Grip the steering wheel firmly
      (2) Do not brake, slow gradually
   e. Move off the road to change a tire

8. *"Muscling in"*

   a. Pedestrian in crosswalk, stop about four feet back and do not attempt to proceed until it is clear.
   b. Allow vehicles making left turn in front of you plenty of room, some drivers cut turns sharply.

9. *The Illusion of Security*

   a. Feeling of false speed
   b. Feeling of false momentum
   c. Becoming velocitized
   d. Check the speedometer frequently

10. *The Thoughtless Three*

    a. The weaver
    b. The sight-seer
    c. The deadfoot driver

G. *Road Maps*

1. *Planning*
2. *Let passenger be the navigator*
3. *Study the Legend, and the explanation that is with it.*

III. *APPLICATION*

A. Ask students to help set up an analysis of driving errors as they walk or ride on the streets.

B. Discuss reasons why many people drive too fast in the country. How does a driver who is well-trained and experienced compensate for this?

C. Show potential accident situations (films, slides, etc.)

D. Direct group discussion on how to prevent collisions.

E. Provide field trips and demonstrations.

F. Panel discussions — Defensive vs. offensive driving.

IV. *FOLLOW-UP (EVALUATION)*

A. Why is it not safe to learn to stop, start, and maneuver in city traffic?

B. Why may it be difficult to get your car into the street safely?

C. Give the most important reason for always going around your car before backing.

D. Why, when you enter the street from your driveway, may it be necessary that you go in the opposite direction from the one you desire?

E. Explain exactly how to approach, look, enter and pass safely through an intersection controlled by a traffic light.

F. Why should you first look to your left for cross traffic in an intersection? What is the one exception to this rule?

G. Explain how you would change lanes safely in heavy traffic?

H. What does the word "velocitized" mean as used in the lesson?

I. When does a driver feel as though he is "crawling" as he drives?

J. Describe the important information given by lines, lettering and symbols on the pavement.

K. Why is teamwork in traffic necessary to safe driving?

L. What is "defensive driving"?

M. Why is it necessary to give signals for any change of direction farther in advance while driving in the country than in urban areas?

N. How can you avoid head-on collisions when overtaking and passing?

UNIT ELEVEN

MAINTENANCE AND CARE OF THE AUTOMOBILE

OBJECTIVES:

To emphasize:

1. Why and how a vehicle should be properly maintained.
2. Where to take the vehicle in order to be sure it is in safe operating condition.
3. How proper care of a vehicle can be rewarding.

I. *PREPARATION*

The rewards an owner may receive from taking proper care of his vehicle are obvious in reduced operational cost and higher resale value; but most of all it pays off in safety to the operator, those who may ride with him and to other users of the highway.

The importance of good tires, what kind to buy and how to take care of them to avoid excessive wear or damage.

Knowing where and how to change a tire safely is very important to all beginning drivers and to many so-called experienced drivers who might note the danger of their present procedure.

The necessity for having a safe braking system in good condition at all times is stressed, and a false idea concerning the potency of power brakes is discussed.

All safety equipment on vehicles should be kept in good working condition. This, among others, includes the steering mechanism, all lights, the horn, windshield wipers and washer, glasses and mirrors.

It is pointed out that the cheapest maintenance service an owner may buy is that found at a reputable garage where mechanics are well trained and fully skilled in making dependable repairs with the aid of modern equipment.

The owner must accept the responsibility for seeing that his car is kept in good condition at all times.

II. *PRESENTATION*

A. *Introduction*

"An ounce of prevention is worth a pound of cure." Extended vehicle life and lower maintenance costs, improved appearance, better performance, and safer equipment are but a few of the benefits that come from systematic maintenance.

B. *Lubrication*

1. *Chassis lubrication*
   a. Where to lubricate (Owner's manual) (lube chart)
   b. When to lubricate (Owner's manual)
   c. How to lubricate (Garage observation)
2. *Engine lubrication*
   a. When to lubricate (Owner's manual)
   b. Type of oil to use
   c. The necessity of the oil filter element.
3. *Oil pressure gauge*
   a. Purpose and how it operates.
   b. How read.
   c. How to interpret readings.
   d. Possible causes for not operating.

C. *Cooling System*

1. *Check for leaks*
   a. The radiator
   b. Hot water heater
   c. Water hoses
   d. Hose connections
   e. Water pump
   f. Coolant - water, antifreeze
2. *Water temperature gauge*
   a. Purpose and how it operates
   b. How read

c. Normal temperature while driving
d. Some causes for temperature above normal

D. *Electrical system check*

1. *Proper adjustment on headlights. (Done by garage or service station with beam testing equipment.)*
2. *Clean head and taillights regularly.*
3. *Check battery for:*
   a. Weak battery
   b. Proper amount distilled water
   c. Corroded battery cables and terminals
   d. Bad connections
4. *Location of fuse box (Spare fuses in vehicle)*
5. *Ignition switch*
   a. Purpose
   b. Location on car
   c. How it is turned on
6. *Ammeter:*
   a. Purpose and how it operates
   b. Value to driver
   c. How read
   d. Cause for variation in reading

E. *Fuel System (Exhibit fuel system charts and salvaged parts)*

1. *Carburator*
2. *Gas tank (Capacity)*
3. *Fuel lines*
4. *Fuel pump*
5. *Gasoline gauge:*
   a. Purpose and how it operates
   b. How read
   c. Possible causes for not operating

F. *Keep tires in safe condition*

1. *Proper amount air pressure*
   a. Under inflation causes excessive wear on outside of tire
   b. Over inflation causes undue wear in middle of tire
2. *Check for:*
   a. Weak spots
   b. Cuts
   c. Blisters

d. Metal or stones in tire tread

3. *Rotate tires*
4. *Changing tires*

G. *Brakes*

1. *Pedal light enough so that brake locks at 2" from floor. (Adjustment)*
2. *Test skid marks at 10 MPH*
3. *Rainy weather (Dry linings by driving in low or second with right foot on brake short distance).*
4. *Master brake cylinder (Check every 1000 miles.)*
5. *Test and adjust park brake every 1000 miles.*

H. *Safety Aids*

1. *Light control:*
   a. Switches
   b. Locations on instrument panel
   c. Steering post
   d. How to check lights
   e. Difference between dim or parking and depressed headlights.
   f. Open road and passing beam patterns
   g. Fuses and their purpose and location
   h. Panel lights and taillights.
2. *Rear view mirror:*
   a. Purpose
   b. Adjustment
   c. Value to driver
   d. Blind spots
3. *Windshield wiper:*
   a. Purpose and operation
      (1) Electric type
      (2) Vacuum type
   b. How controlled
   c. Advantages of dual wipers
4. *Sun visors:*
   a. Purpose
   b. Location
   c. Operation

5. *Windshield defroster and heater*
   a. Purpose
   b. Location
   c. Operation
6. *Horn Button*
   a. Location
   b. Purpose
   c. Over-use

III. *APPLICATION*

A. Students point out parts of car that need maintaining

B. Show students how to check: oil, tire pressure, battery, radiator, springs, fan belt, wipers, clutch, brake, etc.

C. Students assist in keeping car clean.

D. Discuss the common checks a driver may make to insure safe vehicle operation.

E. Have students prepare report taken from one of the popular periodicals such as Popular Mechanics, Popular Science, Mechanics Illustrated, Car and Motor Trends.

F. A field trip to a local major service station and observing the washing, greasing, and maintenance check on the vehicles they service and have students prepare a report on what could be added to the check at the service station.

G. Visit one of the local major car agencies and inspect the cars and watch their garage in operation.

H. Show film of preventative maintenance.

IV. *FOLLOW-UP EVALUATION*

A. Who is responsible for the mechanical condition of the car you drive? Give reasons.

B. Why do some tires wear more on each side than in the middle of the tread, and others more in the center?

C. How can you check your brakes for defects?

D. Why is it so necessary that the steering mechanism of a vehicle be in good conditon?

E. Written and oral tests.

EMPHASIZE

Look for the causes of excessive tire wear, why people are sometimes confused about what kind of tires to buy, why brakes fail, what safety equipment should be checked regularly, and where automobiles can be taken for repairs.

UNIT TWELVE

ACCIDENT REPORTING AND RECORDS

OBJECTIVES:

1. To acquaint pupils with the way information from traffic accidents reports is used to bring about an improvement in traffic safety.
2. To acquaint students with the procedures to follow in reporting accidents.
3. To know types of laws covering the reporting of motor vehicle accidents.
4. To know facts about accident costs — local, state, and national.

I. *PREPARATION*

1. What accidents are reported, and procedures used.
2. To whom accident reports are sent.
3. Where to obtain reports from.
4. What to include in reports.
5. Use of accident information.
6. Cost of accidents.
7. Formulation of Laws.

II. *PRESENTATION*

A. What accidents are reported, and procedures used. (Check local ordinance)

1 *Property damage*
   a. $50 and over
   b. Owner not present, leave name and address.
   c. Don't make an agreement with another driver.
   d. Make report to your insurance company immediately.

2. *Bodily injury*

3. *Fatality*

4. *Safety responsibility law*
   a. Death, personal injury, more than $100 property damage.
   b. File estimate
   c. Ten days to report

5. *Report to insurance company*

6. *Procedures to follow in case of an accident.*

B. *To whom accidents reports are sent:*

1. *Local enforcement agencies*
2. *State Department of Public Safety*
3. *Insurance Agency*

C. *Where to obtain report forms*

1. *Local police*
2. *State Department of Public Safety*
3. *County sheriff's office*
4. *Insurance agency (only the insurance forms. Complete all questions related to accidents.)*

D. *What to include in reports*

1. *Time of accident*
2. *Location of accident*
3. *Identification of drivers*
4. *Description of what drivers were doing*
5. *Speed*
6. *Violation indicated*
7. *Other items that could prove to be useful*

E. *Use of accident information*

Engineering

1. *County*
2. *City*
3. *State*
4. *Spot maps (for enforcement and engineering)*
5. *Driver-licensing authorities*

F. *Costs*

1. *Economic losses*
   a. Deaths
   b. Non-fatal injuries
2. *Monetary costs*
   a. Lost wages
   b. Medical fees
   c. Property damage
   d. Insurance
   e. Change in occupation or profession

G. *Formulation of laws*
Types of laws

1. *Civil laws*
2. *Criminal laws*
3. *City laws*
4. *State*
5. *National*

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III. *APPLICATION*

A. Visit a police accident records department to see how reports are kept and used.

B. Ask the traffic department to discuss high accident locations in the town.

C. Visit an insurance office and find cost of different kinds of insurance. Also learn the basis for insurance rates.

D. Discuss types of insurance policies to determine the kinds of coverage included in them.

E. Visit the traffic engineer's office and learn how this department uses accident records for improving road conditons.

F. Secure an "Accident Report" form from an enforcement agency. Set up an accident situation and write up the report on the report form.

IV. *EVALUATION*

A. Have students submit an accident report.

B. Written tests.

UNIT THIRTEEN

DRIVING ON FREEWAYS

OBJECTIVES:

1. To teach the characteristics of freeways.
2. To teach the need of preparation for freeway driving.
3. To teach the correct way to enter a freeway.
4. To teach the correct way to maneuver a car on freeways.
5. To teach the correct way to leave a freeway.

I. *PREPARATION*

A. *Discuss the characteristics of freeways*

1. *Limited number of interchanges where vehicles can leave freeway.*
2. *Access to freeway can be made only at interchanges.*
3. *There are no intersecting roads at the same level as the freeway.*
4. *There are no railroad crossings on freeways.*
5. *No traffic controls are placed on freeways.*
6. *Traffic going in the opposite direction is separated by a median strip on freeways.*
7. *Crossing the median and left turns are prohibited.*

NOTE: Place these seven points on overhead transparency or on a chart for discussion purposes.

	INSTRUCTIONAL STRATEGY
II. *PRESENTATION*	
A. *Advance Preparation*	A. Through teacher-pupil discussion list the items of preparation for driving on a freeway on the blackboard. 1. When should the plans be made? 2. What should you know about the intended route and interchange where you will get off? 3. What about stops? 4. How many hours should you drive non-stop? 5. How about the fuel? 6. What parts of the car should be inspected just prior to freeway driving? 7. What things should you make sure you have in the car before starting?
B. *Entering the Freeway*	B. Use blackboard to show the ramp leading from the roadway to the accelerating lane. Discuss ramp speed and purpose of the acceleration lane. As you travel on the ramp, keep studying the gap situation. Take short quick glances over the shoulder. Try to spot a gap before you enter the acceleration lane. If there is none, slow down and time your entrance so there will be one. You should reach the gap before you reach end of accelerating lane. If possible enter gap at same speed as the cars on the freeway.

C. *Driving on Freeways*

C. Discuss with members of the group driving on the freeway.

1. Position of your car on freeway
   a. right lane generally
2. Speed and volume of traffic
   a. maximum
   b. minimum
3. Following distances
4. Space for passing
5. Closely bunched cars
6. Lane changing
   a. long clear space
   b. checking traffic
   c. signaling intention
7. Relative speed
   a. difference between your vehicle and all objects outside your car
   b. relative speed between your car and stationary objects shown on speedometer.
   c. when passing relative speed between your car and car being passed.
   d. speed of other drivers when being passed.
   e. returning to drive lane after passing another.
8. Other considerations
   a. vision (sight distance)
      (1) regulate driving
   b. blowouts
      (1) apply brakes lightly
      (2) tighten grip on steering wheel and keep wheels straight.

(3) check traffic immediately

(4) signal intention to pull off.

(5) park off freeway as far as possible

(6) ways of signaling for assistance

(7) get out of car

(8) stay away from but near car

(9) during dark hours turn off all lights except dome light

c. effects of continuous high speed driving on the driver.

(1) highway hypnosis
(a) symptoms

D. *Leaving the Freeway*

D. Review "planning or advance preparation step"

1. You arrive at the interchange just prior to where you leave the freeway. Discuss proper lane to be in for leaving freeway, velocitizing of driver, speed, and signaling intent.

2. Speed at time you enter deceleration lane.

(a) place drawing on blackboard and discuss.

(b) next steps after entering deceleration lane.

(1) speed adjustment (ramp speed)

(2) cross traffic

(3) parked cars

(4) pedestrians

(5) traffic controls

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NOTE: - What do you do if you over run the correct interchange?

III. *APPLICATION*

A. Have pupils make detailed plans for driving the driver education car on a freeway.

B. Lay off a "simulated" ramp with a "simulated" accelerating lane and have pupils practice entering accelerating lane correctly and merging with simulated traffic on a simulated freeway.

C. Ask pupils to prepare a list of things the driver should know and do to keep from having an accident while driving on a freeway.

D. Lay off a "simulated" deceleration lane in an off-street and practice entering it correctly and adjusting to slower driving conditions.

IV. *FOLLOW-UP (EVALUATION)*

A. Why is it important to make advance preparation for driving on a freeway?

B. What points should be considered in the advance preparation step for driving on a freeway?

C. At what speed should you enter a freeway?

D. What two conditions make freeway driving hazardous?

E. When should you reduce your speed as you leave the freeway?

F. Why is it difficult to adjust to a slower speed upon leaving freeway?

STUDENT LEARNING EXPERIENCES THAT RELATE TO THIS TOPIC

A. Have pupils check Accident Records, State Department of Public Safety, and find leading causes of accidents on freeways.

B. Have pupils interview at least six adult drivers to see what advance preparation they would make before driving on freeways.

C. Have pupils observe at least six accelerating and decelerating lanes associated with entering and leaving freeways and evaluate the length of them and tell how this might effect their driving.

UNIT FOURTEEN

DRIVING UNDER ADVERSE CONDITIONS

OBJECTIVES:

To understand:

1. Road and weather conditions which may make driving hazardous.
2. And anticipate hazardous driving conditions rather than be caught unaware in a dangerous situation.

3. Techniques used by safe drivers regardless of hazardous conditions.

I. *PREPARATION*

This lesson deals with the problems faced by all drivers when road, weather, and light conditons are unfavorable for the safe operation of motor vehicles. Driving in rain; fog; smoke or smog; on roads covered with snow or ice; on gravel, sand, oil, or dirt roads with ruts can be very hazardous. Roads with step grades, sharp turns, bumpy surfaces, and those which reflect very little or no light at night can be dangerous. Traction is the principal thought throughout. The causes which lead to skidding and a simple recovery should be explained. The motor vehicle should serve as well in winter as in summer if it is properly "winterized." The proper check-up procedures recommended by the Committee on Winter Driving Hazards of the National Safety Council should be explained.

Caution is suggested while driving in unfamiliar areas. Special emphasis should be given to the proper method of braking under various conditions. The importance of good visibility and how to mantain it while driving under adverse conditions is fundamental to accident-free operation. Lowering the headlights when meeting or following behind other vehicles should be stressed. The hazards experienced while driving just at sunset and just before dark should be discussed.

Point out that merely abiding by the posted speed limits will not assure safe operation of a vehicle. Adjusting speed to existing conditions is the only safe way to drive.

II. *PRESENTATION*

A. *Skid conditions*

1. *Dry roads*
   a. Braking or accelerating too fast. (Show chart on stopping distance)
   b. Turning too fast
2. *Sand and gravel on roads*
3. *Wet roads*
   a. The first sprinkle
   b. Mud on pavement
   c. Oil slicks
   d. Wet leaves
   e. Wet steel rails
   f. Brick pavement
   g. Wet or frosty planks

B. *Winter Driving*
   1. *Automobile checklist (tires, brakes, etc.)*
   2. *Avoid sudden action*
      a. Overpowering
      b. Oversteering
      c. Overbraking

C. *Starting on Slippery Surface*
   1. *Key words, gently and gradually*
   2. *Rocking the car*
   3. *Have the front wheels straight*
   4. *Tire pressure*

D. *How to keep going*
   1. *Uphill grades*
   2. *Icy spots*

E. *Rear wheels, starting and stopping*

F. *Stopping on snow and ice*
   1. *Pumping brakes*
   2. *Downshifting*
   3. *Effects of temperature changes*

G. *Condition of low visibility*
   1. *In winter*
   2. *Approaching bright headlights*
   3. *Driving toward the sun*
   4. *Twilight*
   5. *Rain and fog*

H. *Driving through mountainous country*
   1. *Coasting out of gear (never)*
   2. *Some special care*

I. *On rolling, hilly roads*

III. *APPLICATION*

A. Student observation and experience
   1. *Field trips*
   2. *Demonstration*
   3. *Driving experience under adverse conditions with strict teacher supervision.*

B. Let students pass a truck to feel vacuum pull, or let truck pass them.

C. Place gravel, mud, or wet leaves on any paved surface, and let students stop on it.

D. Drive through water, then test brakes.

IV. *FOLLOW-UP (EVALUATION)*

A. Explain how you would drive if it were absolutely necessary in dense fog.

B. At the time of a rainstorm, when is the roadway most dangerous? Why?

C. What should be done as soon as the car begins to come out of a skid?

D. What is the safest way to slow down on ice?

E. How would you try to start your car moving on snow or ice?

F. What should be done if your wheels lock when you apply your brakes?

G. How does an expert driver meet adverse conditions?

H. Would you expect drivers in the colder regions of the country to be able to drive better on ice or snow than those who live in the warmer regions? Explain.

I. Describe the best way to control a vehicle on long steep downgrades.

EMPHASIZE:

Look for:

1. *Adverse conditions which can occur at any time during any part of the year.*
2. *Conditions that become hazardous only during certain seasons of the year.*
3. *Hazardous conditions which are easily recognized.*
4. *Hazardous conditions which are not easily ascertained.*
5. *Techniques of protection against hazards.*
6. *Reasons for not always driving at posted speed limits.*

REVIEW

List adverse conditions and then rate them as to their dangers, with reasons.

1. Fog
2. Snow and ice
3. Mud on highway, or muddy road
4. Loose gravel on road
5. Rush hour traffic
6. Heavy truck traffic
7. Wet leaves on highway
8. Bumps, or rough surfaces
9. Wet steel rails
10. Wet, or frosty planks
11. Gravel roads

12. Icy spots, shady spots and bridges
13. Weather too hot or too cold
14. Driving into the sun
15. Twilight and dawn (Sleepy time)
16. Rain
17. Mountainous terrain
18. Narrow highways and bridges
19. Wind
20. Construction work on highway
21. Desert driving (hypnosis)

UNIT FIFTEEN

PURCHASING AND INSURING YOUR CAR

OBJECTIVES:

1. To teach the pupil how to determine the need of an auto, and if so, what type of an automobile best meets his needs
2. To teach the pupil rationalization in buying.
3. To determine the cost and ability to pay for an automobile.
4. To teach the pupil the most economical way to buy a car and the need for buying from a reputable dealer.
5. To teach young people how to judge car condition and value.
6. To teach why adequate insurance coverage is needed.
7. To acquaint the individual with various types of insurance, legal involvement and costs based on driving record.

I. *PREPARATION*

The lesson emphasizes the need for proper information in order to make a wise investment in a motor vehicle. Analyzed are: desire, financial ability, where to buy, where to finance, and how to insure.

A. *Automobile (Discussion should be stimulated by these four leading questions.)*

1. In what manner will I benefit by having an automobile?
2. What are the advantages and disadvantages of a luxury, standard and compact cars?
3. What factors should be considered moneywise in purchasing a car?
4. Should I purchase a "standard shift" or an "automatic shift" auto?
   (Let a student list on the blackboard the advantages and disadvantages that the class decided on.)

B. *Insurance*

1. Discuss briefly, insurance protection to create an interest and a better understanding of its importance.

2. Divide class into groups and assign one objective to each group for further research.
   a. Suggest places and material from which each group might get information.
   b. Find the names of local insurance companies.
   c. Get copies of several policies from different companies.
   d. Get sample accident forms to study and fill out.

II. *PRESENTATION*

A. *Automobile*

1. *Need for a car (new or used).*
   a. Pleasure and recreational pursuits.
   b. Travel to and from work.
   c. Professional use.
2. *What to pay for an automobile.*
   a. Cash (most economical)
   b. Financing
      (1) Down payment, interest rate, carrying and service charges, tags and sales tax.
      (2) Financial responsibility.
      (3) Unexpected expenses.
3. *Buying a used car.*
   a. On the lot test.
   b. The driving test.
   c. The shop test
4. *Sources of financing an automobile.*
5. *When should you buy?*
   a. Late fall
      (1) New models are out — guide sale of all models
      (2) Can buy demonstrators reasonably priced
   b. Spring — increased demand for used cars.

B. *Insurance*

1. *Fire and Theft*
2. *Comprehensive*
3. *Public Liability and Property*
4. *Collision*

III. *APPLICATION*

A. Have a student prepare a check list of items to be inspected regularly for maintaining safe and efficient car operations.

B. Have the students prepare and hand in a paper showing how much it would cost him to own and maintain a car for a period of three years.

C. Have the students select one particular model and style of automobile and obtain prices from 5 - 10 used car lots in town for comparison.

D. Get policies and fill out for imaginary persons of different ages, different safety risks, etc.

E. Have a panel discussion.

F. Have quiz program of information acquired from research and speakers

G. Control of emotions and ability to rationalize when buying a car can help keep a buyer out of trouble.

IV. *FOLLOW-UP (EVALUATION)*

A. Why is it important that we analyze ourselves carefully before we buy or trade cars?

B. How does the cost and maintenance of an automobile compare with other costs of an individual or family?

C. How would you inspect a used car in order to determine its mechanical condition?

D. Point out the advantages of buying from a reputable dealer.

E. When you finance a car, does the insurance required by the financing agency cover your investment? Explain.

F. What conditions affect insurance costs?

G. What three things should you know about reporting accidents?

H. Discuss fully why proper insurance coverage is necessary.

LEARNING EXPERIENCES

A. Planned field trips to used car dealer, insurance agents, finance man, garage.

B. Students can look up dishonest ways some dealers use to cover age defects of car.

C. Students can examine and report on (1) new car guarantees; (2) used car guarantees.

D. Report on ways of honestly reconditioning a used car.

E. Learn and report on financing plans for the purchase of cars.

F. List in two columns: (1) the direct (2) the indirect costs that can come with buying and operating a car.

G. Study blank insurance policies.

H. Plan research activities to learn local insurance rates.
I. Interview insurance agents.

EMPHASIZE

Watch for procedures of choosing a good used car. Where to go for best financing. Be alert to state laws concerning liability insurance and financial responsibility.

UNIT SIXTEEN

OPERATOR LICENSING AND VEHICLE REGISTRATION

OBJECTIVES:

1. To acquaint beginning drivers with the purposes for driver licensing.
2. To acquaint beginning drivers with the legal requirements for securing an operator's license.

I. *PREPARATION*

Many persons do not understand or misunderstand that acquiring an operator's license only grants them a "privilege" and not a "right" to drive a motor vehicle on the roadways of Oklahoma. This privilege can be retained if the operator drives the vehicle in compliance with the law. For many young people the operator's license is a prized possession.

The first driver licensing law was passed in Connecticut and Massachusetts in 1905. It was not until 1953 that the last of the then forty-eight states — South Dakota — passed a driver licensing law.

Originally, legislatures thought the driver licensing program was simply another source of revenue. To begin with none of the states gave tests of any kind.

Traffic authorities of today feel that only qualified persons should be allowed to drive. That tests should be given by qualified persons to those who desire to drive. They believe that the following competencies should be checked before one receives an operator's license: (1) physical ability to drive, (2) knowledge of traffic rules and safety practices, (3) necessary skills to be a safe driver, and (4) proper mental attitude toward safe driving.

An operator's license is a certificate indicating that the owner has passed the physical, written, and road tests required by state law.

	INSTRUCTIONAL STRATEGY
II. *PRESENTATION*	
A. *Operator's License*	A. Lecture and blackboard - Oklahoma Driver's Manual. 1. Age a. birth certificate as evidence 2. Pass knowledge test 3. Vision test 4. Driving test 5. Read and understand road signs 6. Cost $4.00 7. License must be carried at all times when driving.
B. *Probationary Period*	B. Refer to Oklahoma Driver's Manual.
C. *Restrictions for Operator's License*	C. Discuss and list on blackboard. Place information on transparency. 1. Corrective lens 2. Left outside rear vision mirror 3. Automatic transmission or clutch 4. Turn indicators 5. Daylight driving only 6. Detailed restrictions on license 7. Accompanied by a licensed operator in front seat
D. *Expiration Date*	D. Discussion and lecture. 1. Two years from the nearest birthdate 2. Notice is sent to holder of valid license 3. Renewal may be made by mail or at a motor license agent.

E. *Duplicate License*	E. Discussion. 1. Lost, destroyed, or mutilated a. present license must be valid in order to get a duplicate b. cost $1.00 for duplicate.
F. *Change of Name or Address*	F. Lecture and discussion. 1. Marriage or divorce 2. Court order (information on previous license number and name must be supplied) 3. Ten days to report 4. Purpose: keep license, name, and address current.
G. *Altering an Operator's License*	G. Lecture and discussion. To alter, deface, lend, or use a fictitious name is a $50.00 fine.
H. *Rules Test*	H. Discuss material to study for test. What if you fail, when can it be repeated? What if the subject cannot read?
I. *Vision Test*	I. Discuss requirement. 1. restrictions for lens 2. meaning of this restriction.
J. *Driving Test*	J. Discuss points examiner will check. 1. Items used for scoring on test. a. left and right turns b. quick stop c. backing d. parallel park and start on hill e. turnabout f. posture g. use of signals h. control of car i. attitude toward other users

	j. lane driving
	2. Written record
	3. At completion of test explanation is given by examiner
K. *Driver Education Temporary Instruction Permit*	K. Discussion and lecture.
	1. Length of time in effect a. six months
	2. Age a. 15½
	3. Enrolled in or have completed high school driver education.
	4. Must be certified by driver education teacher
	5. Entitled to drive so long as a licensed driver is seated beside him or her.
L. *Learner's Operator License*	L. Discussion and lecture.
	1. Requirements a. 16 years of age b. pass written test c. pass physical test d. pay regular fee
	2. Privilege allowed a. drive with a licensed driver seated beside him or her.
	3. Restricton removed when road test is completed. a. only three examinations on on road test permitted during first six months. One test each six months thereafter. b. a copy of last test must be supplied for succeeding tests.

M. *Revocation of License*	M. Discussion and lecture. 1. Manslaughter resulting from operation of a motor vehicle. 2. Driving a motor vehicle while under the influence of intoxicants. 3. Any felony while driving a motor vehicle. 4. Failure to stop and render aid in the event you are driving a motor vehicle involved in an accident resulting in death or personal injury. 5. Perjury or the making of a false statement, under oath, in obtaining a license, or in reference to any law relating to the ownership or operation of a motor vehicle. 6 Conviction or forfeiture of bail, upon three convictions of reckless driving committed within a period of twelve months. 7. Negligent homicide. 8. Failure to submit to a chemical test. Effective January, 1969.
N. *Length of Revocation if convicted*	N. Discussion and lecture. 1. First offense, six months. 2. Not less than one year.
O. *Restoration of operator's license after suspension or revocation*	O. Lecture and discussion. Use license examiner. 1. Furnish proof of financial responsibility for three years. a. A Form FR-22 sent in by your insurance company, showing that you now

	have in force, a motor vehicle liability policy. b. An approved bond or certificate of self insurance. c. A deposit with the State Treasurer of $15,000 in cash or acceptable securities, accompanied by evidence that there are no unsatisfied judgments of any character against the deposit.
P. *Implied Consent Law*	P. Discussion and lecture. 1. Effective date January 1, 1969 2. Provisions: All drivers who operate vehicles upon roadway shall be considered as having given his consent to a breath or blood test to determine alcoholic content.
Q. *Motor Vehicle Registration*	
1. *Requirements*	1. Discuss and list on blackboard. A brief description of vehicle to be registered. The type and factory number assigned to the vehicle by the Tax Commission. The correct name and address — street address, name of city, county, and state where owner resides. Vehicles brought from other states must have valid identification.
2. *Number plate, form, display, and certificate*	2. Filing of application shall also constitute a registration certificate.

	Upon payment of fees, the Commission shall assign an appropriate identification and number plate with a certificate of registration. License plate shall be securely fastened to the rear of the vehicle. Plate and letters must be clearly visible at all times. Plates must indicate the type and nature of the operation for which such vehicle is used.
3. *Date when license fee is due*	3. Due January 1, of each year. Delinquent on February 1, add 10 cents per day delinquent fee. March 1, the fee will be doubled.

IV. *FOLLOW-UP (EVALUATION)*

A. When was the first driver licensing law passed?

B. What age must one be to get an unrestricted license?

C. If a driver is restricted to driving with glasses, what does this mean?

D. To what age drivers may the probationary period apply?

E. What is the renewal date for operator's license?

F. List at least four tests required of an applicant for an operator's license.

G. How long does a driver have to report a name change?

H. What is the penalty for altering an operator's license?

I. What is the cost of a duplicate license?

J. What provisions must be met to drive with a "Driver Education Temporary Instruction Permit?"

K. What is the "Implied Consent Law"?

L. If a license is revoked, what are the provisions for it being restored?

STUDENT LEARNING EXPERIENCES THAT RELATE TO THIS TOPIC

A. Have pupils do a study on the first licensing program in Oklahoma and report to the class.

B. Have a committee of pupils interview a driver licensing examiner to determine a comparison between those taking the test who have had driver education and those who have not. Report to the class.

UNIT SEVENTEEN

ALCOHOL AND DRUGS

To understand:

OBJECTIVES:

1. The dangers of the misuse of alcohol or common drugs on driving ability.
2. The difference between the "social drinker" and the "drunk" while at the same time showing what can happen to anyone with alcohol in his bloodstream.
3. The problem of alcohol and drug misuse.

A serious social problem in the special field of traffic safety is driving under the influence of alcohol and drugs. The public should be concerned with the general welfare of the community and help combat one of the major causes of traffic and accidents.

This problem should be of concern to everyone, because it affects the driver that drinks and uses drugs as well as those who do not use alcohol and drugs. Since this problem affects the non user of alcohol and drugs, they should be well informed about the effects of alcohol and drugs upon the driver and the traffic safety problem created.

I. *PREPARATION*

A serious problem of our present-day transportation system is tho misuse of alcohol and drugs by vehicle-operators and pedestrians. This lesson deals with the behavioral effects of alcohol and drugs as they pertain to driving and walking on the streets and highways and does not take a moral or emotional tone.

Statistics from reliable sources show that a high percentage of traffic accidents involve drinking drivers. These figures reveal only some of the drinking drivers. They were apprehended because of being involved in an accident or in a traffic violation. Obviously, many who drink and drive are not apprehended. The problem then is actually much greater than the statistics show.

II. *PRESENTATION*

A. *Alcohol*

1. *What is alcohol*

(1) Ethanol - (Ethyl Alcohol)
Composed of starch, sugar, and other carbohydrates by fermentation and in more concentrated form by distillation of the fermented liquid.

(2) A depressant.

2. *Stages of Intoxication*

a. The state of euphoria
Blood alcohol - 0.02% to 0.20%

b. The stage of incoordination
Blood alcohol - 0.12% to 0.28%

c. The stage of confusion
Blood alcohol - 0.24% to 0.40%

d. The stage of anesthesia
Blood alcohol - 0.32% to 0.50%

e. Death
Blood alcohol - 0.50% or over

3. *Tests to determine the degree of intoxication*

a. The breathalyzer

b. The drunkometer

c. The alcometer

d. The intoximeter

e. The urinalysis

f. The blood test

4. *How alcohol affects the driver*

a. Slows reaction

b. Increases self-confidence (false confidence)

c. Impairs vision

d. Impairs judgment

e. Impairs muscular coordination and efficiency

5. *Facts about drinking and driving*

a. Statistics on accidents caused by drinking

(1) Oklahoma accident facts

(a) Published by Oklahoma Safety Council in cooperation with Oklahoma Department of Public Safety

(b) Approximately one-half of deaths in automobile accidents are due either directly or indirectly to the presence of alcohol.

6. *The rights of non-drinkers*

a. Life, liberty, and the pursuit of happiness.
b. These rights should be protected by stronger legislation.

7. *Combating alcohol at the Wheel*

a. Long Range Program
   (1) Education through our schools
   (2) Churches
   (3) Temperance Groups
   (4) Research by doctors and scientists
b. More immediate action
   (1) Stronger laws and penalties
   (2) Vigorous impartial enforcement at the local level

B. *Drugs*

Narcotic Drugs fall under the category of substances which disrupt or distort the function of the mental well being of an individual. This presents a peril to safe driving and traffic control. For example: Barbituates, Tranquilizers, cold pills; etc.

1. *Types of Drugs*

a. Marijuana
   This drug is more dangerous than alcohol but can be broken off without violent illness.

b. Alkaloid Narcotics (Habit Forming)

   (1) Opium

   (2) Heroin

   (3) Morphine

   (4) Cocaine

   (5) Demerol

2. *Symptoms*

a. Contracted "Pin Point" pupils of the eyes
b. Constantly running nose
c. Indifference
d. Appetite loss
e. Malnutrition
f. Distorted senses of time and distance

3. *General prescription type drugs*

a. Drugs that cause drowsiness
   1. Sleeping pills

2. Cold drugs
3. Anti-histamines
   a. Hay fever
   b. Asthma
   c. Sinus congestion
4. Tranquilizers

b. Stimulants
   (1) Substitute for needed sleep or rest (pep pills)
   (2) Effects of stimulants
      (a) Over active imagination
      (b) Hallucinations

4. *Economical Aspects of the Narcotic User*

   a. Very few drug addicts have ever been cured of addiction

   b. Cost to support narcotic addiction
      (1) Moderate habit - $20.00 per day
      (2) Very active habit - $100.00 per day

   c. Means of addiction support
      (1) Incapable of holding an honest job
      (2) The addict resorts to the following:
         (a) Robbery
         (b) Burglary
         (c) Selling drugs to others

5. *Alcohol and drugs combined*

   a. Greater danger than total of separate effects

   b. Alcoholic beverages should not be consumed after taking drugs.

   c. Consult with physician or pharmacist as to driving after taking drugs.

6. *Resources Personnel*

   a. State highway patrol

   b. Local police

   c. School nurse

   d. School physician

   e. American Medical Association

A highly trained corpse can be of no service to himself or to his fellow man.

III. *APPLICATION*

A. Research and reports (by groups or individuals)

1. Laws governing the advertising of alcohol in Oklahoma
2. The effects of alcohol on the human body.
3. Alcohol as its attributes to accidents.
4. Alcoholism and economy
5. Misuse of drugs.
6. Drug addicts and society.

B. Resource Personnel

1. Demonstrate and explain how tests are given to determine the degree of intoxication.
2. Law enforcement as related to the problem of intoxication
3. How the various drugs affect the driving ability of a person

IV. *FOLLOW-UP (EVALUATION)*

A. What faculties are affected even after one drink of a beverage containing alcohol?

B. How does this affect driving?

C. What are inhibitions? What dangers can result from their loss?

D. Is the social drinker more or less dangerous than the drunk driver? Why?

E. Why do some drivers use "bennies"?

F. Is it common knowledge that use of various easily secured over-the counter drugs can be dangerous in driving?

LEARNING EXPERIENCES

A. Collect a series of articles from the daily newspapers which cover traffic accidents. See how many of these can be traced to the use of alcohol.

B. Find out from your police department the number of accidents involving drinking drivers. Also, the number of arrests from drunk driving.

EMPHASIZE

A. Groups, Communities, families do have different feelings toward the use of alcohol, but alcohol still has an effect on the body of the user. Drugs may have a similar effect on the drivers.

B. Close with the fact that use of alcohol can not only put the driver in danger but also everyone else who uses the highways.

UNIT EIGHTEEN

ESSENTIAL FIRST AID KNOWLEDGE RECOMMENDED FOR AUTOMOBILE DRIVERS

OBJECTIVES:

1. To develop an understanding of the necessity for First Aid Training as it relates to automobile accidents.
2. To develop an understanding of legal protection available in Oklahoma for those rendering proper first aid to injured victims.
3. To develop ability:
   - A. To perform approved methods of artificial respiration.
   - B. In controlling various types of bleeding.
   - C. In rendering first aid in fractures.
   - D. To prevent and treat for shock.

I. *PREPARATION - Needs for First Aid Training*

- A. Increase in number of cars and highways.
- B. Faster speed of cars and how it relates to increase of critical injuries.
- C. Cost of equipment to help control vehicle speed.
  1. *Signs and signals*
  2. *Machines*
  3. *Personnel*

II. *PRESENTATION*

- A. Explain State law protecting first-aiders, Good Samaritan Act of 1963.

  Any person who in good faith renders or attempts to render emergency care consisting of artificial respiration, or preventing or retarding the loss of blood, or aiding or restoring heart action or circulation of blood, at the scene of an accident or emergency to the victim or victims thereof, shall not be liable for any Civil damages as a result of any acts or omissions by such person in rendering the emergency care.

- B. *Artificial Respiration*
  1. Mouth-to-mouth
  2. Mouth-to-nose
  3. Back-pressure, Arm-lift
- C. *Control of Bleeding*
  1. Types of bleeding
     - a. Arterial
     - b. Venous

c. Capillary

2. Methods of controlling blood flow

a. Direct pressure on wound
b. Pressure points
c. Occasional use of tourniquet

D. *Fractures and Splinting*

1. Types of Fractures

a. Simple
b. Compound

2. Splinting Material

a. Improvised splint (sticks, jack-handle, etc.)
b. Commercial (Air-splint)

E. *Transporting or Moving the Injured*

1. Render all first aid treatment BEFORE attempting to move injured person.
2. Improvise stretcher (poles with blanket, coat, etc.)
3. Back or neck injuries

a. Should NOT be moved unless ABSOLUTELY NECESSARY
b. Back or neck MUST BE immobilized

4. Arm or leg fracture

a. SHOULD NOT be moved unless necessary
b. Extremeties should be immobilized

III. *EVALUATION*

A. Written tests on how to treat injuries to different parts of the body.

B. Practice application on other students.

C. By use of Resusci-Anne, demonstrate mouth-to-mouth resuscitation procedure.

D. Write a short narrative describing an automobile accident giving certain types of injuries and have student explain what type of care each victim should receive.

Resource Materials

1. Medical self-help training kit.
2. Resusci-Anne (for mouth-to-mouth resuscitation practice) obtained from the State Department of Health, 3400 N. Eastern, Oklahoma City, Okla. 73105.

3. Films: "Breath of Life" and "Signal 30"
4. American Red Cross aid handbook
5. Speaker: Oklahoma State Department of Health
   Oklahoma State Department of Public Safety
   Local police and fire departments

Part IV

A — EVALUATION

Evaluation is the process by which the worth or quality of a particular idea, experience, or program is assessed. Evaluation procedures may range from subjective judgments to conclusions reached through a formal research approach.

Every program of driver and traffic safety education should include provision for evaluating the extent to which its objectives are being achieved. It is therefore important that these objectives be clearly stated and consistent with accepted educational philosophy and sound administrative practice.

Evaluation may be considered in terms of (1) immediate outcomes or student learnings; (2) ultimate objectives, including accident prevention; and (3) program characteristics and practices. 1*

In Driver Education, as in any school program, evaluation is the process of making judgments to be used as yardsticks for upgrading programs. Evaluators must collect evidence of achievements and inadequacies, make judgments from this evidence and use these judgments as a basis for program revision. Thus the outcomes, procedures, the facilities, or the objectives may be improved.

Evaluation should be based on the goals and the degree to which they are accomplished. The accident rate of pupils who have completed a course in driver and traffic safety education is only one of the criteria to be used. Primary responsibility for evaluations rests entirely with the school. Examination should encompass:

Administrative policies

Organizational procedures

The nature of offering physical facilities

Qualifications of instructional staff methods, objectives, materials and activities

Student achievement, based on pre-established goals

Instructional, supervisory, and administrative staff should be involved for the purpose of effecting revision and improvement, and of determining appropriate goals and policies. Section D-6 of the Evaluative Criteria, 1960 edition, 2* is recommended as a guide to Safety Education programs.

Involvement of persons outside the school may not only improve public support but also enhance effectiveness of evaluative programs.

1* Policies and Practices for Driver and Traffic Safety Education, National Commission on Safety Education, Washington, D.C., 1964, p. 43.
2* National Study of Secondary School Evaluation, Evaluative Criteria, D-6, Driver Education, 1960, Washington, D.C.

B — STUDENT EVALUATION AND TESTING

I. It is difficult to know what progress is made in any teaching field without testing and evaluating. Most tests should be developed by the teacher so that each may be assured of testing and evaluating the material covered in the classroom and driving phase of teaching.

A. *Testing and evaluating must have a two-fold purpose:*

1. To determine if the course is accomplishing the objectives for now and the future.
2. To determine as best possible, if the student is learning and achieving the knowledge, skills and attitudes for safe driving.

B. *Before we are able to evaluate progress of the student we must know the student. Use all available means in the early part of the course to become acquainted with each by some of the following methods.*

1. Autobiography
2. History of driving experiences — filled out by the student.
3. Consult the counselor — conference and correspondence with parents.
5. Minnesota Counseling Inventory Tests (or other such personality adjustment tests).

II. *Physical Tests*

A. Eye Test — Acuity, field, depth, color, etc.
B. Hearing
C. Reaction
D. Steadiness
E. Others (Teacher should have a list of all physical defects of all students.)

III. *Knowledge Tests*

A. Unit Test
B. Oklahoma law and uniform traffic code
C. Standardized tests
D. Final test

IV. *Skill Tests*

A. Starting and stopping — Left and right turns
B. Attitude toward use of streets and highways
C. Turn about
D. Angle park
E. Parallel park
F. Hill park
G. Driving in city traffic

H. Driving on highway

I. Road test

J. Skill test

V. *Follow-Up Study of Former Students*

A. Data on driving records

B. Possible refresher classes

Part V

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Kearney, Paul W. *How To Drive Better and Avoid Accidents.* 2nd Rev. Ed., 1964. Crowell, Thomas Y., Company, 201 Park Avenue, South, New York, New York, 10003.

INFORMATIONAL BULLETINS

1. (The American Automobile Association)
1712 G Street N.W., Washington 6, D.C. 20006

AAA Driver Education Publications

Aids for Dealers Loaning Dual Control Cars

Driver Education Equipment Catalog

Driver Education for the Youth of the Nation

Driver Education Reduces Accidents and Violations

Driver Education Saves 5,500 Lives

Driver Education Services of the American Automobile Association

Driving Ranges

Fatality Hazard Greater for Young Drivers

Insurance Rates for Trained Drivers

Safety Posters

School Bus Patrols

State Aid for Driver Education

Summer Driver Education Courses

2. Aetna Life and Casualty, 151 Farmington Ave., Hartford Conn. 06115
   "Drivotrainer Information Kit"
3. Allstate Insurance Co., 7447 Skokie Blvd., Skokie, Ill. 60077
   "A Teenage Pattern"
4. Automotive Safety Foundation, 200 Ring Bldg., Washington, D.C. 20036
   "Teenage Driving Facts"
5. Chrysler Corporation, P.O. Box 1919, Dept. B, Detroit, Mich. 48231
   a. *"To the Parents of a Teenage Driver"*
   b. *"The Ever Increasing Need of Driver Education"*
6. Frankemuth Mutual Insurance Co., Frankemuth, Mich.
   "Sports and Driving Quiz"
7. General Motor, Detroit, Mich. 78202
   a. *"American Youth Magazine"*
   b. *"Be an A-C-E Driver"*
8. Hardware Mutuals, Monitor Bldg., 600 N. Harvey, Oklahoma City, Okla. 73102
   "Safe Driving is More Fun"
9. Highway Visibility Bureau, 520 N. Michigan Ave., Chicago, Ill. 60611
   "A Program for Safer Driving Through Better Visibility"
10. Oklahoma State Department of Education
    a. *Rules and Regulations for Driver and Traffic Safety Education*
    b. *Agreement for Use of Dual Control Car*
11. Oklahoma State Department of Public Safety, Box 11415, 36th & N. Eastern, Oklahoma City, Oklahoma
    a. *"Oklahoma Drivers Manual"*
    b. *"Protect your Driver License"*
12. National Safety Council, 425 N. Michigan Ave., Chicago, Ill., 60611
    "Student Accident Reporting Guidebook"
13. Kemper Insurance Group, 4750 N. Sheridan Road, Chicago, Ill. 60604
    "The Way to Go"
14. Rubber Manufacturers Association, 444 Madison Ave., New York, N.Y. 10022
    "Consumer Guide to Tire Care"

15. Southwestern Insurance Information Service, Oklahoma Division Office, 321 N.E. 24th, Oklahoma City, Okla. 73105
"No Respecter of Teenage"

SOURCES OF HELP FOR DRIVER EDUCATION PROGRAMS

American Automobile Association, 1712 G. Street, N.W., Washington, D.C. 20006

Auto Industries Highway Safety Committee, Inc., 2000 K. Street, N.W., Washington, D.C. 20006

Automotive Safety Foundation, 200 Ring Building, 1200 18th Street, N.W., Washington, D.C. 20036

Insurance Institute for Highway Safety, 1725 DeSales Street, N.W., Washington, D.C. 20036

National Commission on Safety Education, 1201 16th Street, N.W., Washington, D.C. 20036

National Safety Council, 425 N. Michigan Avenue, Chicago, Illinois 60611

Oklahoma Safety Council, 1600 N.W. 23rd, Oklahoma City, Oklahoma

Oklahoma State Department of Education, Division of Driver Education 4545 Lincoln, Oklahoma City, Oklahoma 73105

Oklahoma State Department of Public Safety, Box 11415, 36th & N. Eastern, Oklahoma City, Oklahoma 73111

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4. *American Seat Belt Council,* Film Library, 4717 N. Highland Avenue, Hollywood, Calif. 90028
5. *American Telephone and Telegraph Co.,* Film Dept., 195 Broadway, New York, New York 10007
6. *Association Films, Inc.,* 347 Madison Ave., New York 17, N.Y. 10017
7. *Bureau of Safety,* 20 N. Wacker Dr., Chicago, Ill. 60606
8. *Carl Ross Films,* 57 E. Jackson Blvd., Chicago 4, Illinois 60604
9. *Charles Cahill and Associates, Inc.,* 5746 Sunset Blvd., Hollywood, Calif.
10. *Cornell Film Co.,* 1501 Broadway, New York 36, New York 10036
11. *Dallas Jones Production, Inc.,* 430 W. Grand Ave., Chicago, Ill. 60610

12. *Encyclopaedia Britannica Films Inc.*, 1150 Wilmette Avenue, Wilmette, Illinois 60610
13. *Ford Motor Company*, Motion Picture Dept., 3000 Schaefer Rd., Dearborn, Mich.
14. *Foundation for Universal Driver Education*, 718 N. Maclay Ave., San Fernando, Calif. 91340
15. *General Motors Corporation*, 3044 W. Grand Blvd., Detroit, Mich. 48122
16. *General Picture Production Inc.*, 621 Sixth Ave., Des Moines 9, Iowa 50309
17. *International Film Bureau*, 332 S. Michigan Ave., Chicago, Ill. 60604
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19. *Math-U-Matic, Inc.*, 611 West Sheridan, Oklahoma City, Okla. 73102
20. *Mutual Insurance Company*, Columbia, Mo.
21. *National Education Association, National Commission on Safety Education*, 1201 16th Street, N.W., Washington, D.C. 20036
22. *National Safety Council*, 425 N. Michigan Ave., Chicago, Ill. 60611
23. *Portland Cement Association*, 33 W. Grand Ave., Chicago, Ill. 60610
24. *Progressive Pictures*, 6351 Thornhill Dr., Oakland 11, Calif. 94611
25. *Seiberling Tire and Rubber Co.*, Public Relations Dept., Akron, Ohio
26. *Shell Oil Co.*, 50 W. 50th Street, New York, N.Y. 10020
27. *Sid Davis Productions*, 1418 N. Highland Ave., Hollywood, Calif. 90028
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